

1978

# Computer-based decision competency activity to foster aspects of personal development in college students

James Edward Nault  
*Iowa State University*

Follow this and additional works at: <https://lib.dr.iastate.edu/rtd>



Part of the [Student Counseling and Personnel Services Commons](#)

---

## Recommended Citation

Nault, James Edward, "Computer-based decision competency activity to foster aspects of personal development in college students " (1978). *Retrospective Theses and Dissertations*. 6540.  
<https://lib.dr.iastate.edu/rtd/6540>

This Dissertation is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

## INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.
2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.
3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.
4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.
5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

**Xerox University Microfilms**

300 North Zeeb Road  
Ann Arbor, Michigan 48106

7903967

NAULT, JAMES EDWARD  
COMPUTER-BASED DECISION COMPETENCY ACTIVITY  
TO FOSTER ASPECTS OF PERSONAL DEVELOPMENT IN  
COLLEGE STUDENTS.

IOWA STATE UNIVERSITY, PH.D., 1978

University  
Microfilms  
International

300 N. ZEEB ROAD, ANN ARBOR, MI 48106

Computer-based decision competency activity to foster  
aspects of personal development in college students

by

James Edward Nault

A Dissertation Submitted to the  
Graduate Faculty in Partial Fulfillment of  
The Requirements for the Degree of  
DOCTOR OF PHILOSOPHY

Department: Professional Studies  
Major: Education (Counselor Education)

Approved:

Signature was redacted for privacy.

In Charge of Major Work

Signature was redacted for privacy.

For the Major Department

Signature was redacted for privacy.

For the Graduate College

Iowa State University  
Ames, Iowa

1978

## TABLE OF CONTENTS

	Page
INTRODUCTION	1
Statement of the Problem	2
Focus	3
Purpose of Study	3
Rationale	4
Definitions	6
Basic Assumptions	10
Objectives	11
Theoretical Hypothesis	12
Null Hypotheses	12
Delimitation of Study	13
REVIEW OF RELATED LITERATURE	14
Decision Making	14
Vocational Choice	24
METHODS OF PROCEDURE	36
Design	36
Selection	38
Instrumentation	39
Hypothesis Testing	43
Independent Variable	43
Dependent Variable	49
FINDINGS	51
Analysis of Data	51
DISCUSSION	68
SUMMARY AND CONCLUSIONS	72
Conclusions	74
Recommendations	75
SELECTED REFERENCES	76
ACKNOWLEDGMENTS	83
APPENDIX A: DECISION MAKING MODULES	84

	Page
APPENDIX B: GAMING AND SIMULATION PROBLEMS	94
APPENDIX C: EXAMINATION ON SCIENTIFIC PROCESS OF DECISION MAKING	134

## LIST OF TABLES

Table	Page
1. Mean scores for experimental and control groups, difference scores and t-values for the Examination on Scientific Process of Decision Making	52
2. Mean scores on pre and posttests for experimental and control groups, gain and difference scores, and t-tests for the Ego Development Scale	55
3. Mean scores on pre and posttests for experimental and control groups, gain and difference scores, and t-tests for the Tennessee Self Concept Test	58
4. Mean scores on pre and posttests for experimental and control groups, gain and difference scores, and t-tests for the Edwards Personal Preference Schedule	62

## LIST OF FIGURES

Figure	Page
1. Comparison of control and experimental mean part scores on the posttest of the Examination on Scientific Process of Decision Making	53
2. Comparison of pretest scores for the experimental and control groups on the Ego Development Scale	56
3. Comparison of gain scores for experimental and control groups on the Ego Development Scale	57
4. Comparison of pretest scores on the Tennessee Self Concept Scale for the control and experimental groups	59
5. Comparison of gain scores for the control vs. experimental groups on the Tennessee Self Concept Scale	60
6. Comparison of pretest scores on the Edwards Personal Preference Schedule for the control and experimental groups	65
7. Comparison of gain scores on the Edwards Personal Preference Schedule for the control and experimental groups	66



## INTRODUCTION

Man's ability to adapt or adjust effectively in a changing technological society seems to be one of his most critical problems. Education ideally should contribute to the adjustment of the individual to his society as he finds it and to the adjustment of societal conditions to meet the individual and collective needs of people. The forces of society are potent in that the cultural impact on the individual may distort his perceptions which mold and shape his behavior. Although the focus in this study is on the adjustment of the individual to his society, it is imperative to recognize the importance of society's impact on influencing people in their gratification of personal needs.

Education has been man's means of both creating and meeting change. In order to meet the needs of constant changes, new and different techniques should be created, initiated, and established so that education may lead to a more meaningful and more satisfying adjustment. A more positive approach dealing with the personal development in man, focusing on decision making, offers promise for dealing with man's inability to adapt. Man should, in some way, attempt to alter or change society through the implementation of a sound decision making program.

If man's personal development can be improved so that he can make more satisfying life decisions, the role of education would be better served. If personal development can be attained by fostering ego development through exposing individuals to positive decision making principles through gaming and simulation, the individual will be better

able to deal more realistically with his own needs and live a more satisfying life. Educators are not only concerned with the individuals, but with their family, their community, and their productivity. If man profits from personal development and is successful in terms of job promotion, production, better learning and maintaining family relationships, the results of his success are passed on to his family and his community. Because the individual is happy and content, he performs more efficiently on his job. As an end result, society, and mankind will reap the harvest of this improvement in personal development in man. This study deals with the use of the computer as a possible means to accomplish that end.

#### Statement of the Problem

Wars, riots, soaring crime rates, increased divorce rates, the progressive increase in the use of drugs, all attest boldly to the general ineffectiveness of personal choices of individuals. One must assume that the personal election of choices represents the best an individual is capable of for his own gratification of needs. It cannot be denied that man remains a product of his own personal decision making, and not that of another; however, such decision might be made by others. Religion, prescription drugs, operant conditioning, hypnosis, and logical persuasion all seek to improve man's lot largely through external controls. The major world problem remains the development of self-control of the individual through the single inherited vehicle for election of choices, the decision process. It must involve dealing

squarely with the "locus of control" in the selection of choices through some educational process where internal strength and self-control remain the major expected outcome.

#### Focus

The computer represents one of the most recent developments in modern technocracy. The many advantages realized from the use of the computer by other disciplines as well as by business and government hold promise for corresponding advantages in education. The use of the computer in decision making is one of the advantages that gives much promise. . The real role of the computer is to provide experience with problems in decision making through gaming and simulation. Here the individual must face the problem and make choices for future action where the choices are real even though the situation is simulated.

#### Purpose of Study

The purpose of this study is to develop and assess programmed activities and experiences for certain students in a junior college course covering one of the most critical aspects of human behavior -- competency in decision making. The programmed activities and experiences will employ some of the recently emerging principles of humanistic psychology and the most recent developments in modern technology, the computer. The competency will be evaluated in terms of scores on the Scientific Examination of Decision Making and other psychological instruments that purport to measure personal development, i.e., Ego

Development Scale, Tennessee Self Concept Scale, and the Edwards Personal Preference Schedule.

#### Rationale

Humanistic psychology is a rather recent development in psychology in terms of an accepted overall approach to the study of human behavior, as represented by the 32nd Division of the American Psychological Association (APA) in 1971. It is the only systematically organized school represented in such a division, implying that those principles have rather broad application in the areas of human behavior. In many respects the principles of humanistic psychology are in direct opposition to those utilized in the traditional course in general psychology, or, for that matter, any other courses generally taught throughout our schools. In the technical school learning activity is expected to lead to development of certain skills and to be an end in itself, as opposed to the traditional Junior College academic course where such learning is a means to some end. For example in dealing with younger people, individuals are more concerned with the immediate needs, since present needs are more real to them than future needs. Learning experiences in technical colleges may be expected to have intrinsic value or relevance to daily living as opposed to the general education course where the value is extrinsic and not necessarily relevant to the present situation.

Learning activity must lead to personal growth on the part of the learner. This means that "information about," characteristic of college and university courses of instruction -- typically referred to as "Mastery"

learning, must, in fact, lead to "experience with," which under humanistic psychology becomes "Competency" learning. Traditionally school tests have focused on the measurement of information and have neglected, in large part the application of such information. The newer approach of which the General Educational Development test is a good example stresses that educational development is more than the massing of information but more importantly should emphasize the use of that information. Buhler (1974) reports:

Humanistic Psychology started as a modest venture in 1962 when A. Maslow in cooperation with a small group of colleagues founded that Association for Humanistic Psychology, which a year before was preceded by the edition of a Journal of Humanistic Psychology, edited by A. Sutich.... "The time was ripe, it seems, for a completely new approach to the understanding of human being." A Maslow started out with defining humanness as being with a natural tendency to growth.

Others have sought to define the critical difference wrought by the new humanistic psychology, where differences between the traditional and the new emphasis in learning were emphasized. Cassel (1973e) has contrasted some of these differences in the following statements:

- (1) Context or situation critical-affect of individual paramount,
- (2) Focus on purpose-expected outcomes serve as guides,
- (3) Need gratification paramount-incites and directs behavior,
- (4) Intrinsic value of activity-not extrinsic value,
- (5) Activity leads to personal growth-not accumulation of knowledge alone,
- (6) Autonomous-each and every individual a Free-will creature,
- (7) Involves love-of-knowledge to unfold and uncloth one spiritually-psychologically,
- (8) Gaming spirit-play of child captured,
- (9) Strong identification with men-belief in human beings,
- (10) Strong democratic values-black and white, rich and poor all treated alike,
- (11) Spontaneous-accepts people as they are and acts natural,

- (12) Fresh appreciation for people and things-continuous improvement,
- (13) Self-actualization-full achievement of own potential,
- (14) Multiple levels of reality-from deliberation to medication, and
- (15) New and higher levels of human freedom.

### Definitions

#### Modules

A series of teaching units concerned with the use of the computer in teaching decision making through gaming and simulation.

#### Information about

This concept deals with the presentation and discussion of theory or subject matter which has been the traditional basis of achieving growth in the individual.

#### Experience with

This concept utilizes gaming and simulation as a vehicle to provide experience with, through exposure to realistic social problems, where the decisions are real but the situations are simulated.

#### Personal development

A natural and logical end to an expected outcome for courses in general psychology, for example, is personal growth and development on the part of the individual. Typical college courses, characterized by the dispensing of information, are unlikely to lead to personal development, for little or no "experience with" is afforded in the process or activity.

Personal development means increased improvement in adaptation to the various areas of one's life space. It is measured by increased ego development, improved self-concept, and more effective decision making competency, as well as improved need gratification. For the purpose of this study, the dependent variables are those factors which can be assessed by objective psychological data. Important aspects of these phenomena involved in the dependent variable may be measured by certain psychological instruments that purport to deal with such phenomena. Each of the four variables; decision making, ego development, self-concept, and need gratification, is believed to be critical in all interactions of the individual in one's life space, and they are defined as follows:

#### Ego development

Ego is the part of the inner structure of the personality that serves to gratify one's personal needs and represents one's "self-identity." It is more than one's personality; for it is the substance that guarantees unity to life and represents the imperishable soul-substance by which one is known (Freud, et al. 1965).

The function of the ego is to gratify the internal need by the use of external manipulation. The ego serves man by reducing his tensions, and by doing this gratifies his needs. The locus of control must clearly be the ego. Ego development appears to occur in three different areas (Cassel, 1974b):

1. Personal - The theme is decision making.
2. Social - The theme is human relations.
3. Educational - The theme is a better way of life, career development, and vocational direction.

It is the ego that does the deliberation that arrives at the decision making. The ego plays a dominant role in integrating and coordinating the thinking and feelings of these individuals which involve bias and values.

### Decision making

One of the most critical aspects of all human behavior remains the development of competency in the decision making process, for it is this process that is central to every major aspect of human behavior. Who and when one marries; the particular job career one prepares for or does not prepare for; the dangerous drug abuse one does or does not get involved in; and, indeed, the outcomes of every aspect of the life-space are direct derivatives of the choices one elects from the alternative courses of actions known by the individual to be available in decision making.

Decision making is a psychological process that is developed and perfected through learning. It represents the primary function of the ego in that it projects anticipated needs for the future with necessary planning and decision making to accomplish one's desired outcomes. Accordingly, decision making may be planned to strengthen the ego, and experience through a practical application of decision making principles to realistic social problems is a necessary requisite.

### Decision making learned

A careful examination of the decision making process reveals that it is not unlike the doing of arithmetic or the writing of a composition. It is learned behavior, like every other psychological process, and man is simply not born with the skills readily developed any more than he is



born with the ability to do arithmetic, or play the piano, or write a business letter. For the most part, the major learning in relation to decision making derives directly from "trial-and-error" experiences in one's life space. If one were to learn his arithmetic in the same fashion, there would be very few mathematicians in the world today.

### Self-concept

The concept of self is chiefly a product of ego functioning and focuses on the past. It represents the self-image or those qualities that make one different from others. The major self-concepts related to one's ego are determined largely by the culture and have been best described by the theory of Fitts (1964) in the Tennessee Self Concept Scale as follows:

1. Physical Self - One's image of own physical being, short/tall, thin/fat, pretty/ugly, healthy/unhealthy, etc.
2. Moral Self - One's image of moral character, personal responsibility, including one's value system.
3. Family Self - The affiliation and acceptance or rejection of one's immediate family members and patterns of behavior.
4. Social Self - How one interacts in relation to peers and society and characteristic mechanisms employed in the face of frustration
5. Personal Self - The sum total of all other selves and how one accepts the total self.

In the emotionally healthy individual, the self-concept may be measured across the five dimensions and is positive as well as consistent.

### Need gratification

Man's needs are basically gratified by the ego. They have been described by H. A. Murray et al. (1938) who originated a list of manifest needs that are measured in the Edwards Personal Preference Schedule (EPPS).

They are as follows:

1. Achievement - To succeed.
2. Deference - To let others make decisions.
3. Order - To keep things organized.
4. Exhibition - To be the center of attention.
5. Autonomy - To resist being influenced.
6. Affiliation - To participate in friendly groups.
7. Intraception - To analyze oneself and others.
8. Succorance - To seek encouragement from others.
9. Dominance - To persuade others.
10. Abasement - To feel guilty and inferior.
11. Nurturance - To help, forgive, and show affection for others.
12. Change - To do new and different things.
13. Endurance - To keep at a job until it is finished.
14. Heterosexuality - To socialize with the opposite sex.
15. Aggression - To be hostile and contrary.

### Basic Assumptions

The first basic assumption maintains that the nucleus of personal development in individuals is competency in decision making and improved human relations skills.

The second assumption of the study maintains that the four psychological instruments used in this study each assess a specific aspect of personal development in individuals, and that collectively such assessments reveal the general nature and degree of personal development related to decision making.

Small gains in personal development for such a select group of college students suggest much longer gains may be expected in the general population. Since college students are selected due to better than average intelligence, they may have a minimal problem of adaptation as compared with other people who may have major problems in adaptation and thus may be expected to be helped more. The more capable people appear to have less problems in terms of providing for their basic and luxury needs, and college students generally fall into this group. Dealing with single individuals may, in turn, serve to foster greater personal development, but such individualized approaches represent a luxury that seldom prevails in an economically oriented culture. Therefore, the group approach promises greater acceptance if empirical growth can be demonstrated.

### Objectives

The first objective demonstrates that individuals exposed to treatment variables for developing decision-making competency will demonstrate greater effectiveness in decision-making and personal development than a correspondent group of individuals not exposed to the treatment variables.

The second objective of this study is to identify and define certain techniques that can be used to facilitate the adaptation of junior college students to a changing society.

The third objective is to functionalize helping relationships so they may be used in existing settings for junior college students.

The fourth objective is to assess the effectiveness of dependent variables that are intimately related to the student's adaptation and which lend themselves to an objective assessment by available psychological instruments.

### Theoretical Hypothesis

The main hypothesis of this study supposes: If a group of individuals are exposed to the treatment variables for developing decision making competency, they will demonstrate greater effectiveness in decision making and personal development than a corresponding group of individuals not exposed to the treatment variables. This greater effectiveness may be measured by scores on the following:

1. Scientific Examination of Decision Making
2. Ego Development Scale
3. Tennessee Self Concept Scale
4. Edwards Personal Preference Schedule

### Null Hypotheses

The following null hypotheses will be tested as part of this study.

1. There will be no significant differences between the control and experimental group in decision-making as measured by scores on the Scientific Examination of Decision-Making Test.
2. There will be no significant differences between the control and experimental group in ego development as measured by scores on the Ego Development Scale.

3. There will be no significant differences between the control and experimental group in self concept as measured by scores on the Tennessee Self Concept Scale.
4. There will be no significant differences between the control and experimental group in need gratification as measured by scores on the Edwards Personal Preference Schedule Scales.

#### Delimitation of Study

1. College populations represent a highly select group of individuals not representative or characteristic of the general population of individuals.
2. The control group was taught by a different teacher.
3. Eight weeks exposure to the experimental variable represents a rather short period in the busy life of a college student who is preoccupied with other time demands, and who tends to subordinate the importance of success on the dependent variable.
4. Usual limitations of psychological instruments in the assessment of critical factors related to personal development in individuals must be taken into consideration.

## REVIEW OF RELATED LITERATURE

The humanistic approach is not original or new but includes the existential, phenomenological, and mentalistic elements (Misiak and Sexton, 1973). It is a type of psychology that appealed to that segment of early psychologists who sought an alternative that focused squarely on man and his existential characteristics.

William James and G. Stanley Hall, (Misiak and Sexton, 1973), were early American advocates of the humanistic orientation that would preserve and restore the whole man. They were followed in the 1930's by Gordon Allport and Henry Murray who adopted the humanistic theories of personality. Since the early 1940's, Carl Rogers and Abraham Maslow have made significant contributions to its development and formulation as a formal movement. Although Maslow is regarded as the father of Humanistic Psychology, more recently Charlotte Buhler has been considered the senior spokesman for the movement. She feels the most central concept of man is creativity.

Humanistic Psychology and decision making are highly related phenomena that, bonded together, may well be the answer to the many pressing problems that must be dealt with by individuals.

## Decision Making

Decision making can be defined as a process in which a person selects from two or more possible choices. Unless there is more than one course of action, an alternative, or a possibility to consider, a decision

is not needed. If a choice does exist, a decision making process is then utilized. Two individuals may face a similar decision, but each person is uniquely different, and each may choose a different course of action. It is the individual who makes each decision unique. Learning decision making skills increases the probability that a person can achieve and fulfill his wants and needs.

To be a skillful decision maker, a person needs to know something about himself, his values, and his capabilities, as well as to have the know-how to change these characteristics where the possibility and desire exists to change them. It is also desirable to know something about his present and projected environments and opportunities, as well as limitations and he should possess the know-how to achieve these conditions. A skillful decision maker needs to know the techniques and steps involved in the decision making process. Decision making is not a function of maturity alone but is a learned process not unlike any other psychological process. The need for experience "with" to go along with "knowledge about" as well as the opportunity to utilize that knowledge is important in being an effective decision maker.

Current programs designed to introduce students to the concepts of decision theory have been developed chiefly by counseling and teaching psychologists to aid high school, junior college, and college students in making personal, educational, and vocational decisions (Cassel, 1975a). Several of the programs extend beyond providing basic training in decision making. Individuals can explore their own value systems, seek relevant information, predict probable outcomes, and try out different decision

strategies. Some of these programs utilize traditional instructional materials and workbooks, programmed learning and computerized systems. Reliance should not be limited to the exclusive use of educational hardware.

David Tiedeman (1968) at Harvard attempted to define the process of decision making in vocational development. He has developed an information system for making vocational decisions and has computerized it. The major objective was to improve vocational decision making through the use of a computer-based training program. The student can relate knowledge about himself to data about education, training, and work, and can obtain information on which to base a career decision. The person, computer, and counselor are linked together in such a way that the student conducts a dialogue with the computer. The counselor then assists the student in interpreting and evaluating the results. Clark, Gelatt, and Levine (1965) focused attention on the process of decision making with information on outcomes of courses of action that appeared both necessary and sufficient to make intelligent decisions.

The function of the guidance services was two-fold. One function involving helping the students make good educational-vocational decisions while the other focused on helping them develop effective decision making skills. This paradigm suggested that the greater the knowledge a student has concerning the possible sequences of experiences that lead from his present situation, the more likely he will be able to direct his own development toward the outcomes he desires. Local validity studies conducted in two secondary schools in Palo Alto, California, served as



examples illustrating the possibilities useful in educational planning and showing positive results.

D. B. Gelatt of the College Board (1973-74) reports on a 1971 program called "Deciding" designed for students grade seven through nine (Gelatt, 1973). In the fall of 1973, "Decisions Outcomes" was published for older high school students and adults to assist them to become more skillful decision makers. From this program the student learns that good decision making begins with knowing what his personal values are and establishing objectives that are in keeping with these values. Various exercises are given to students which help them identify their objectives. An example in the exercise called "Objectives and Choosing a Job" indicates how students make practice decisions by matching objectives with one of ten possible job choices. After publication of these programs, the demand exceeded the supply, and leadership training workshops were developed and presented throughout the country.

By the end of 1973, the Annual Review of Psychology contained a separate chapter on Decision Making to add credence to its growing acceptance. In the previous year at the University of South Carolina, a large group of contributors in all disciplines met to discuss the implications of decision making and to share their research (Cochrane and Zeleny, 1973). The University of South Carolina held this important seminar on "Multiple Criteria Decision Making" in 1972, where sixty-three papers were presented dealing with "the State of the Art" in the Science of Decision Making. The published reports are contained in a book by the same name. The papers presented were classified into eight different

groups representing a most global and comprehensive treatment of the subject on decision making:

- PART II - Multiattributed Utility, Risk, and Uncertainty.
- PART III - Multiobjective Optimization: Utility and Weights.
- PART IV - Multiobjective Optimization: The Nondominated Solution Approach.
- PART V - Goal Programming, Finance, and Capital Budgeting.
- PART VI - Physical, Social, and Market Environments.
- PART VII - Objectives, Decisions, and Their Language.
- PART VIII - Potential Areas of Applications.

In 1973, Russel Cassel described in considerable detail the procedure for developing decision competency in helping relationships. The book by Russell Cassel, (1973h) The Psychology of Decision Making, is a summary of an accumulation of theory dealing with decision making from the vantage of humanistic and topological psychology. It is intended to serve as a text or reference book for a high school or college level course on decision making. Emphasis is placed on the happiness and freedom of the individual, and the relationship between decision making competency and such attainment. The author maintains that each individual is a product of his own personal decision making, that drugs, divorce, crime, and racial problems are the direct results of one's personal decision making. Thus, to reduce crime, drug abuse, divorce, etc., the author maintains improved competency in decision making is essential. Decision making is explained as being a psychological process that is learned, not unlike all other psychological processes (arithmetic, piano playing, etc.), and courses of

instruction should be provided in our schools to improve the decision making skills of individuals.

In 1974, Dale Prediger of the American College Testing Program discussed the implications of career decision making materials which have been developed to aid the student and counselor in the preparation of the needed steps in the decision making process (Prediger, 1974).

There appears to be a growing trend, as evidenced by the many implementations of the decision making processes, that behavior can be changed or modified through the teaching of decision making principles and as a result, through learning, the competency to make more skillful decisions can be acquired.

In March of 1975, at the American Personnel and Guidance Association (1975) meeting in New York City, several areas in decision making were discussed. Anna Miller-Tiedeman reported on the topic of materials for a deliberate decision making education program for the secondary school and community college. Tiedeman reported that the teachers and counselors must deliver self-development career services to most of the students. This program, called "The Deliberate Decision Making Education Program," consists of two parts: 1) skills learned and 2) skills practiced. Tiedeman felt that the teaching of decision making in retrospect gave students insight of personal experience and represented a very powerful approach to changing behavior. Tiedeman indicated that career education introduces the expectation that students will attain their career skills in the course of their education and that it will be universally achieved.

At the American Educational Research Association annual meeting in March 1975, several topics on decision making were presented dealing primarily with administrative decisions. Bulack (1950) reported on the investigation of the relationship of group openness and group trust to group decisions involving risk.

Varenhorst (1966) discussed the use of values in the decision making process and their importance. She indicated that values were learned and that the individual prizes those values which receive the greatest reward as well as those values to which he has been exposed. Most values are learned through an experience and once learned are internalized and constitute one's identity as a person. Values are achieved through the process of development, and as a person matures, his unique values become integrated into his life style. The decision making process is extremely important at this critical stage of a person's development. She feels that counselors and teachers must recognize the student's fear of commitment that may deviate from safe choices or acceptable values. Because of this, the simulation game becomes a means of overcoming this barrier and assists the individual counseling session to become more productive.

Hosford (1967) feels that a good decision should be evaluated as to the process used in making the decision rather than the particular choice a student makes. Because many students have never learned to make decisions by proceeding systematically, they tend to jump to conclusions while others vacillate from one side of the question to the other. The process can become complicated for many because most students lack the information and experience needed for a tentative decision. The counselor

should assist the individual in learning the process of decision making by aiding students to learn constructive, alternative, behavior-seeking, relevant information about each alternative. The possible outcome and values of each alternative must be weighed and tentative plans of action formulated.

Barber (1968) trained students in the decision making skills on a ten-month project at Wayland Baptist College. At the end of the project, twenty students wrote decision making statements that were ranked by judges for successful use of decision making skills. Certain personality traits were found to be significantly related to success in decision making. Among these were mathematical ability, practical problem solving, rote memory, concentration, range of interests, curiosity, good imagination, maturity, and purposiveness. It appears that school and study habits were also positively related. Successful decision makers were students who were eager to learn. She also compared decision making to level of intelligence and found that mental ability does play a part in success in decision making, though it did not appear to be a prominent factor.

In a study by Willem Doise (1975) it was found that individual or collective judgements made after a discussion deviate systematically from the mean of the individual judgements made before the discussion. He also confirmed that groups usually go beyond the superficial level and are more strict in determining the hierarchical order of criteria than individuals and acquire better structurization of judgement.

Vellutino (1964) studied decision making behavior within the framework of phenomenal self-theory. Additional analysis of the study indicated

that decision making behavior is functionally related to both the self-concept and degree of ego control characteristic of the decision maker.

Wigent (1972) conducted a study that was designed to identify how selected personality variables were related to career decision making abilities of Community College students. It contained the following areas of investigation:

1. Self-concept,
2. Academic Achievement,
3. Educational and social/economic factors related to the student's family,
4. Psychological needs.

The Edwards Personal Preference Schedule was used to measure needs, and the Self Concept Inventory was used to measure the self-concept. The results indicated that individuals who have a good positive self-concept are more likely to have decided on a career goal than individuals who have a less positive self-concept. Academic achievement level of students did not play a significant role in the student's ability to determine his career goal. The study suggested that psychological needs are not an effective basis upon which students are placed in decision categories that serve as high or low degree of certainty in career decision making. The study also suggested that psychological needs were inappropriate in predicting which students will have difficulty with career decision making. The process also indicated that further research might be initiated to determine whether congruence between psychological needs might be a valid measure of career selection factors.

Norrel and Gruter (1960) developed and tested a hypothesis that self-awareness or insight into vocational interest as measured by

agreement between self-estimates and scores on Strong's Vocational Interest Blank is negatively related to needs which inhibit self-awareness. The needs were measured by the Edwards Personal Preference Schedule. The scales were rated by psychologists for their effect on self-insight. The results indicated support for the hypothesis in four need areas. Those who had insight into their vocational interests tended to be higher on need for change and heterosexuality. However, the same individuals also tended to score lower on need for succorance and order.

Henry A. Murray et al. (1938) has given the concept of need a careful analysis. His original list of twenty needs has been modified and refined over the years. Fifteen of these needs have been incorporated into the Edwards Personal Preference Test and have been researched extensively.

According to Murray, a need is always subject to change in objects toward which it is directed as well as in the manner the needs are approached. Sometimes various multiple needs may be gratified by a single course of action. If the outcome is behaviorally the same, then there is a fusion of the needs.

Various types of primary needs are related to the physical satisfactions such as air, water, food, sex, urination, defecation, and lactation. The secondary needs, sometimes called the psychogenic needs, are derived from the primary needs and are characterized by acquisition, achievement, recognition, exhibition, autonomy, dominance, and deference. Murray also discussed the difference between overt needs and covert needs.

as well as manifest and latent needs. Overt needs express themselves in motor behavior, while covert needs usually belong in the world of fantasy.

Murray also points out that needs that are firmly attached to non-central objects are called fixations and are considered pathological. Murray further indicates that the inability of a need to show any preference of an object may be just as pathological as a fixation. It is interesting to note that Murray also feels that the needs do not operate in isolation from one another, and the nature of the interaction of mutual influence has a crucial theoretical importance. He talks about a hierarchy of needs with certain tendencies taking precedence over others. The concept of need represents the significant determinants of behavior within the person. Murray defined the concept of "press" as the significant determinants of behavior in the environment and provides the ultimate in taxonomy of needs. This concept has been widely used in psychology.

#### Vocational Choice

The two most critical decisions one generally makes in relation to success in one's journey through life are selection of a mate, and choice of a career job. More often than not, factors in the situations play an important role in each of these choices. The matter of mate selection involves a heavy emotional component, and the scientific process of decision making is of secondary importance. The problem of career/job selection is one that is continuous with life itself, and the natural upgrading of job level involvement requires repeated involve-



ment in choices that are the basis of one's productivity and personal happiness.

Competency in scientific decision making should make a difference in all important and significant decision making including that of a mate and career job selection. Unless one develops this competency, he would be expected to flounder in relation to all of life's choices. This might be evidenced by crime, delinquency, drug abuse, divorce, racial strife, riots, and even war. Thus, developing competency in decision making must be considered as an integral aspect of curricular and co-curricular offerings in both our secondary schools and community colleges. To expect one to select a mate or job career that is compatible with his own interests and talents without developing some degree of competency in scientific or objective decision making is like asking a novice without musical training to play Bach on the piano. Not only is competency in decision making related to mate selection and success, but, indeed, to every other main aspect of life which includes longevity, wealth, self-control, and morals.

Although the announcement of an individual's vocational direction may be sudden, the process by which he came to make that decision is not. When the occupation selected seems inappropriate, it is only because the influences which have been at work over a period of many years cannot always be clearly perceived.

Every vocational decision has a history. To understand the history, one needs to understand the events, experiences and decision which have preceded it. The final decision is the result of a process stretching

over many years, during which the individual gradually clarifies his self-concept, his goals, and his values, and gains insight into his interests and abilities.

Although the terms vocational choice and vocational decision suggest a single course of action, a vocational choice is, essentially, a process of growth and development.

Late adolescence and early maturity are problem years filled with numerous critical problems and decisions. Most of the concerns encountered during these years are unimportant, but some have an impact upon the life of the individual that may have an effect for many weeks or months. A few are so fundamental that they produce an effect for the rest of life (Roe, 1967; Switzer, et al., 1962; Utton, 1962).

Most young people during this time must face and eventually resolve three fundamental issues that have a lifelong effect. These are as follows: (1) the development of a set of values of lifestyle that will be used to resolve many of the decisions and problems to be encountered, (2) the choice of a life partner, and (3) a career choice.

The decision making process can be described in many ways. At one extreme is the impassive person whose reaction is to accept whatever comes his way. Although this person often feels that he is avoiding the necessity of making decisions by approaching life in this manner, in actuality he has decided not to choose for himself. Toward the other end of the continuum, however, are the individuals who are activists, self-directing, and continuously involved in the decision making process.

There are many references in today's literature on how people choose

their careers. One study examined the occupational choices of students from the sixth grade to graduate school, and included sixty-four students at Horace Mann-Lincoln School and Columbia University in New York (Ginzberg et al., 1951). The authors concluded the effective vocational choice was based upon the ability of the individual to understand insightfully his own values and goals. Further, they stated that three time periods were involved in the vocational choice process: the fantasy, tentative, and realistic periods. During the first two of these periods, the individual is making preliminary choices on a highly subjective basis primarily related to what he would like to do, or a daydream type of approach. During the late adolescence, he begins to recognize that his values and goals, as well as the range of opportunity, will have an influence upon what he ultimately does with his life. This is really a compromise of what he can do and would like to do on the one hand, and the opportunities that exist on the other. Ginzberg et al. feel that since the compromise process is a continuous one, the procedure is essentially irreversible.

Vocational choice is one of the major decisions facing most youths. Employment, in some form, is not only customary in our society, but is an expectation. And although it is a decision that can be confronted with varying degrees of detachment, most individuals desire an active involvement in making the choice (Blau, 1956). Since most students in the adolescent years are embroiled in this process, it has special importance to teachers and counselors who work with teenagers and younger people. Most theories emphasize that vocational choice is a long-range,

gradual process essentially involving the acquisition of a self-understanding and of knowledge about the world of work so that an effective and intelligent decision may be made (Hilton, 1962).

Super's (1953) theory of vocational development is presented in a series of ten propositions. Generally, Super maintains that people differ in their abilities, interests, and personalities; that underlying all differences in man is a developmental process characterized by growth, exploration, establishment, maintenance, and decline; that the nature of one's career pattern is determined in part by inherited attributes and in part by opportunities; that vocational maturity can be fostered by aiding individuals in their reality testing and job experience; and that work satisfactions depend largely upon the extent to which the individual finds adequate outlets for his abilities, interests, and values.

Hoppock's (1957) theory of vocational choice has been described in a series of ten postulates. He maintains that occupations, unlike all other human behavior, are chosen to fulfill or gratify personal needs, real or imaginary, that are present at any given moment of time. The secret to career guidance for Hoppock is to obtain information both about one's self and about occupations with the notion that the best career choice is one where the conditions required for success on the job serves to gratify personal needs one has at the moment of time. When the needs of a particular individual change, the older occupation may no longer gratify such newly emerging needs, and the time has come for a change in occupations.

The principal differences between Super and Hoppock are generally

two-fold in nature. First, and most important, Super maintains that career maturity can be fostered and developed through an educational program independent of one's needs while Hoppock believes that career maturity remains subservient to one's needs. Thus, Super would mold and shape individuals' career choices and values; while Hoppock would be content to study and assess the goodness of fit between world of work and attributes based on needs of the individuals. Second, Super relates the problem of occupational choice to the physical development of the individual and in relation to a typical journey through life while Hoppock relates occupational choice to changes in need patterns that are not related to the development of the individual, but rather to the needs and personal satisfactions of individuals.

Super and Hoppock perceive occupational choice in a very similar manner in that they both postulate the mating or wedding of personal attributes of the individual with specific occupation requirements and conditions. Moreover, both of them perceive relating the world of work with the world of the individual through a rigorous psychological assessment procedure.

Anne Roe (1967) devised an occupational classification using two sets of categories in an eight by six celled table. The vertical set of categories was called levels. The level indicated the degrees of personal responsibility, autonomy, skill and training in a decreasing manner from level one to level six. The horizontal set of categories referred to the following groups:

1. Service
2. Business Contract
3. Organization
4. Technology
5. Outdoor
6. Science
7. General Cultural
8. Arts and Entertainment

This grouping is ordered along a continuum thought to express the nature of the relationships involved in the occupational activities.

Roe's classification of occupations is more like those theories that have arisen out of factor analysis. The degree of orientation toward persons or nonpersons appears to be her only personal dimension in connection with her theory of early determinants of vocational choice. She considers individual experiences a person has in his childhood and adolescence as the major variable in occupational selection.

Tiedeman views career choice in terms of vocational development much like Super (1951). O'Hara and Tiedeman (1959) found that occupational choice may be characterized by the self-concept with a vocational identity. The interest stage appears determined by grade ten. This is followed by a worth-value stage through grade twelve. Career decision making's major motivation is reducing the discord in a person's belief about himself and his environment. These stages reported here appear to agree with Ginzberg's (1952) stages of vocational choice, and he divides the decision making process into two areas: 1) the period of anticipation, with exploration and crystallization in choice, 2) the period of implementation and adjustment with stages of induction and maintenance. Recent work by Tiedeman and others (1970) involves the development and implementation of a computerized informational system for vocational decisions.

There are three areas that theorists usually agree on, one is that occupational choice is a basic life process of growing. Secondly, occupational choice is associated with aspiration and attainment (Super, 1953). Since aspiration is not always fulfilled, attainment must be regarded as a separate aspect. And thirdly, occupational choice is a gradual process. Ginzberg found that occupational choice is developmental over a ten-year period. Stages which also include growth, exploration, establishment, maintenance, and decline are also a part of Ginzberg's theory. These periods are divided into stages of fantasy, tentative, and realistic choices, show that each person is qualified for a number of occupations all having individual differences. Nature of the career patterns is determined by the individual's background, intelligence, and aptitude. And if an individual finds an adequate outlet for his talents, satisfaction will usually come about.

The need reduction concept implies that differences may be perceived more or less accurately by the chooser of an occupation as indicative of the kind of satisfaction of which the individual may use. Interests, values, or needs are concepts that are the consequence of differing motivational states. The central operational statement indicates that such values in the reduction of needs are determined by the choice of an occupation.

John Holland (1966) has developed such a theoretical concept. He feels that the level of the occupation chosen is a function of the chooser's evaluation of his own ability, and that the individual's perception of his needs and abilities are influenced by factors such as found in Anne Roe's and other occupational concepts. Holland at-

tempted to develop a theory of vocational choice which is comprehensive enough to include existing knowledge and at the same time stimulate further research. His present theory assumes that at the time of vocational choice the person is the result of the interaction of his particular heredity, various culture and personal forces such as parents, significant adults and peers, and American culture and physical environment. The person who makes the vocational choice searches for situations which satisfy his hierarchy of adjustive orientations. His theory is defined in terms of the occupational environments and the person, his development, and the interaction's of the person, and his vocational environment.

In 1965, Holland developed the Vocational Preference Inventory to provide a psychological rationale for interpretation of the six classifications (Holland, 1966). They are presently included as occupational themes in the new Strong-Campbell Interest Inventory. The skills that were used in the interest interpretations are as follows:

1. Realistic: technical and skill occupations.
2. Intellectual: scientific occupations.
3. Social: teaching and helping occupations.
4. Conventional: clerical occupations.
5. Enterprising: supervisory and sales occupations.
6. Artistic: artistic, musical and literary occupations.

Morris (1966) and Ziller (1957) described risk and risk taking as a determinant of vocational choice. Ziller introduced the utility for risks in the strategy of decision making. He also showed preference for different degrees of risk determining the occupation chosen. The utility for risk was found to be the result of two components, approach for



success and avoidance of failure. He also found that persons high in achievement and motivation tend to choose moderate risk occupations for themselves where people who are low in achievement tend to avoid moderate risks.

In the economic decision theory, energies were used to arrive at a choice, with reward, cost, and probability levels as variables concerned with the decision theory.

Decision theory is the least consistently developed position in vocational choice. The decision theory supposes that individuals value the rewards of varied kinds of behavior differently. This may be another way of stating the need reduction theory.

Current theories of occupational life take on the structural or developmental view of the individual (Bordin et al., 1963). The structural view is defined as analyzing occupations within a framework for the conception of personality.

The developmental view shows the shaping of experiences that can account for personality organization and accompanying vocational patterns. Tiedeman and Super both speak of acquiring self-knowledge and use the word self. Holland and Roe, however, strive for a structured approach where occupations are grouped according to personal characteristics or activities.

Because the career choice is one of the most important decisions a person must make, it appears almost imperative that without the important know-how and skills of decision making, few will reach a self-satisfying level of success in our increasing competitive society. Since person-

ality is an important concept in occupational life, so, too, is personal development, which becomes the impact of this study. The more effective a person's decision making skills, the greater the personal development and finally, the more ideal the career choice.

Decision-making is a form of reality testing carried on by mature individuals through merit analysis of alternatives in relation to personal goals and is designed to minimize the distortion of perceptions of an individual.

The teacher, through the use of educational procedures, tends to accomplish this end. Asche (1952) reports on the group's influence on an individual's decisions using faulty input. When the majority of the group is at odds with the individual, it tends to distort the individuals decisions. If the person can test the reality of his choices by determining the range of choices, weighing them in relationship to his own goals, and finally testing the outcomes of such assessment, he will tend to minimize the choices of distorted perceptions and become a skillful decision maker.

In summary it was found that:

1. The review of the literature in decision making indicates that several studies have been conducted to improve decision making skills with positive findings.
2. Needs have been used in other studies to determine their relationship to decision making with both positive and negative findings. Wigent (1972) indicated needs were inappropriate in predicting which students would have difficulty with career decision making

while Norrel and Gruter (1960) found that students with insight into vocational interest scored higher on change and heterosexuality and lower on succorance and order as measured by the Edwards Personal Preference Schedule. Vellutino (1964) found that decision making was functionally related to self-concept and degree of ego control.

3. Although studies have been conducted on the high school and college levels in decision making, no studies in the community college field were found.
4. There is evidence that decision making skills may be developed by the acquisition of knowledge, values and skills.

## METHODS OF PROCEDURE

This study was conducted on the campus of the Milwaukee Area Technical College (MATC), Milwaukee, Wisconsin. MATC is the largest of sixteen vocational, technical, and adult schools supported by public monies in the State of Wisconsin, with Fall 1976 enrollment of more than 44,000 students.

## Design

All persons involved in the study were enrolled as students in a course described as Social Science 151, Psychology of Human Relations. The regular college catalogue described this course as follows: (MATC Bulletin, 1975).

A study of psychological principles that will be of assistance in the understanding of interpersonal relations. Motivation, emotion, perception, and learning are among topics considered with reference to effective individual and group behavior.

The nonequivalent control group design (Campbell and Stanley, 1969), a quasi-experimental design, was modified and implemented in this study. Pre and posttesting with the Ego Development Scale, Tennessee Self Concept Scale, and Edwards Personal Preference Schedule was conducted on both a control and experimental group. This design was modified to include posttesting utilizing the Examination on Scientific Process of Decision Making for both the control and experimental group.

The non-equivalent control group design involves an experimental and control group both given a pretest and posttest, but where the control and experimental group do not have pre-experimental sampling equivalence. The groups constitute naturally assembled collectives such as classrooms. They are, however, similar yet not so similar that one can do without the pretest. The assignment of the treatment to the experimental group is assumed to be random. Six classroom groups were used in the experiment consisting of 126 college students.

All students involved were matriculated in lower division college programs; all were presently enrolled in a course entitled Human Relations; and all attended class during dayschool programs. Thus, both experimental and control individuals had common background to the extent of those three conditions.

The 63 subjects for the experimental group were selected on a random basis from three classes of six different classes being offered at that time. Coincident of the selection of the experimental group, the 63 control subjects were selected on a similar random basis from three additional classes from the total of six classes given in Human Relations. Thus, both the experimental and control subjects were selected on a quasi-experimental basis, as defined by Cambell and Stanley.

Age ranges were from 18-20, 21-25, and 26 and over. Based on age, the population in the study matched quite closely the total population of the Milwaukee Area Technical College as reported in the Analysis of MATC Enrollment (1975).

The two-year colleges tend to attract pragmatic students seeking vocational training, as well as students who are building a foundation for further education. The typical student profile of an MATC student is as follows:

1. Approximately 79% are under 30 years of age.
2. Approximately 50% are under 21 years of age.
3. Approximately 72% are single.
4. Approximately 19% are from ethnic minority groups.

#### Selection

Eight classes of Social Science 151 were being taught during the semester of the study. Two of the eight classes were not used in the study since one contained all men in the Police Science program and the other contained all women enrolled in the Registered Nursing Program. The six selected classes were taught at similar hours of the day and were taught by two teachers who were both in their sixties and who had similar amounts of teaching experience. A flip of coin decided which teacher from the Social Science Department would handle students in control and experimental classes. The students in the six classes selected were similar in age and were involved in introductory psychology courses that provided similar academic experience.

#### Experimental group

The experimental group consisted of 63 college freshmen and sophomores currently enrolled in Social Science 151 at MATC. They received a slightly condensed version of the traditional program of the

course they were enrolled in. In addition to this, they were exposed to the treatment factor or experimental variable, eight teaching modules. However, they received the same subject matter content in a similar fashion as the control group.

#### Control group

The control group consisted of 63 freshmen and sophomore college students enrolled in the Social Science 151 at MATC. This group received the regular program, with generally the same subject matter as the experimental group, but, without being exposed to the eight teaching modules. (Appendix A).

#### Instrumentation

The psychological instruments in this study were generally available to qualified users of such materials. All such instruments, except the Examination on Scientific Process of Decision Making, were properly evaluated and standardized in accordance with the principles of the American Psychological Association (1966, 1974), National Council for Measurements in Education, and American Educational Research Association.

#### Decision making

The Examination on Scientific Process of Decision Making, the University of Wisconsin-Milwaukee, 1974 (unpublished) developed by Russell N. Cassel was utilized for this purpose. It is comprised of 60 true-false items tailored to expected outcomes described in decision competency programs portions of

which were utilized as part of the experimental variable of this study (1973a).

This test consists of two parts. Part I is defined as the decision process where technique involved is the election of choice and is concerned with mechanics. Part II deals with decision philosophy where one's value system is emphasized, and the concern involved one's personal beliefs. The total score is the sum of the two part scores. Reliability for this instrument based on internal validity is reported by the author as  $r = .743$ .

#### Ego development

The Ego Development Scale (EDS), by Russell N. Cassel and published by Psychologists and Educators, Inc., (1974b), provides scores in three areas plus a total score:

1. Personal
2. Social
3. Educational
4. Total Score

#### Self concept

The Tennessee Self Concept Scale (TSCS), by William H. Fitts and published by Counselor Recordings and Tests (1964), provides measurement in five areas:

1. Physical Self
2. Moral Self
3. Family Self
4. Social Self
5. Personal Self



### Personal need

The Edwards Personal Preference Schedule (EPPS), by Allen L. Edwards and published by the Psychological Corporation (1954), provides measurement on 15 personal needs and provides a consistency score.

1. Achievement
2. Deference
3. Order
4. Exhibition
5. Autonomy
6. Affiliation
7. Intraception
8. Succorance
9. Dominance
10. Abasement
11. Nurturance
12. Change
13. Endurance
14. Heterosexuality
15. Aggression

### Reliability of instruments

The reliability for each of the instruments involved was carefully reported by the authors of the respective instrument for the populations utilized in the standardization process. Descriptions of the various standardization populations suggest that the 126 members of the study represent a typical population. Because motivational and other factors tend to influence reliability as well as the correspondingness of the populations, reliabilities are reported for the 126 members of the study as a whole.

Internal consistency reliability indices where each item is correlated with the total score, by use of a computer program reported by Cassel (1971), and based on the "Cronbach Alpha" (Cronbach, 1951),

were computed as indicated. For the (ESPDM) the index was a point biserial  $r$  (because of true-false items); while for the other three dependent variables the indices were Pearson  $r$ 's because they contained multiple choice items.

A Pearson or point biserial  $r$  was obtained on each of the following instruments and was based on the Chronbach Alpha technique.

#### Examination on scientific process of decision making

A point biserial  $r$  of .509 was obtained for the 126 subjects of the study and accounted for 26 percent of the variance about the mean. The author reported a similar  $r$  of .743 in unpublished data for a similar population.

#### Ego Development Scale

An Alpha Pearson  $r$  of .852 for the sample of this study was obtained and accounted for 73 percent of the variance about the mean. The author reports a similar  $r$  of .910 for a similar sample.

#### Tennessee Self Concept Scale

Pearson  $r$  of .637 was obtained for the sample of this study and accounted for 41 percent of the variance about the mean. The author reports a Pearson  $r$  of .85.

#### Edwards Personal Preference Schedule

A Pearson  $r$  of .946 was obtained for the sample of this study and accounted for 89 percent of the variance about the mean. The author, Allen Edwards (1954), reports Pearson  $r$ 's of .74 to .88 for

stability, while  $r$ 's of .60 to .87 were reported for internal consistency using the Spearman-Brown formula.

### Hypothesis Testing

The research design utilized for this study is classes as a modified "Nonequivalent Control Group Design," as described by Campbell and Stanley (1969). This design involves an experimental and control group both given a pretest and a posttest. The modification of the design was giving an additional posttest in decision making to the experimental and control groups. The assignment of the treatment is assumed to be random and under the control of the experimenter. For each of the four dependent variables, a  $t$ -test was used to compare pre and posttests and mean part scores, as well as gain scores.

### Independent Variable

The independent variable (treatment or experimental variable) was a classroom procedure for developing theory and competency. The six classes used in this study that included both control and experimental groups were given the same general outline of the Social Science 151 course primarily through lecture and discussions. The experimental group's experience with the course, however, was more abbreviated than the control group. It also had less special assignments in the area and was somewhat shorter in terms of time spent on each aspect in the course outline, but, essentially covered the same material. In

addition to the course material, the experimental variable included eight separate teaching modules, one for each of the eight weeks of the study. These modules were presented as theory and represented the eight stages of decision making (Appendix A). Each of the eight modules represented an independently organized unit of instruction with computerized units designed to make use of such information in surrogate role playing through gaming and simulation (Appendix B). For each of the modules, a half-hour video tape (half inch-black and white) developed by Professor Cassel was utilized by the instructor of the experimental classes as background information. The concepts of the following stages were transmitted through video tapes to the instructor and through lecture to the students in the experimental classes (Appendix A).

1. Locus of Control
2. Models of Excellence
3. Systems Analysis
4. Vector and Valence Analysis
5. Ego Function
6. Group Dynamics and Human Relations
7. Human Freedom Hierarchy
8. Decision Counseling

The eight teaching modules in decision making are taken from Dr. Russell Cassel's "The Computerized Decision Development System - (DEDEV)" and were used as a basis for the teaching of decision making. The theory underlying Humanistic Psychology was added to give the students the overall theoretical basis for the study.

The video tape presentation and, the eight modules each followed

the pattern suggested by C. Ray Carpenter and A. A. Lumsdaine in a recent book reporting on a conference on quality television (Schramm, 1972).

The pattern suggested the identification of a carefully articulated expected outcome with from 8 to 12 major points used to depict such objectives. This concept was used as model in constructing the eight modules used in this study (Appendix A).

One instructor presented the theory to three experimental sections of Social Science 151 lecturing about the eight stages of decision making. The "O-P-A-H-U-D-E" technique, which is explained later in this section, was then implemented by the individual instructor to the Social Science 151 classes. After this stage was completed, each student in the group was given the opportunity to react to realistic social problems included in the gaming and simulation (Appendix B). Each student was provided with a computer terminal where he experienced at least one set of problems and was informed as to his or her decision making score and level of success.

The independent variable included information dispensing, discussion of the stages of decision making, teacher interaction, and in part, the gaming and simulation of the computer in the form of computer interaction.

"O-P-A-H-U-D-E" is a technique used to implement mastery and competency learning that is defined in detail later in this study. Through the "O-P-A-H-U-D-E" technique, each member of the experimental group became involved with the concept which is explained as follows

(Cassel, 1973a, 1975a).

The transition from "information about" typically involved in mastery learning so characteristic of present college and university instruction, to "experience with" essential for competency learning must of necessity place a higher priority on student activity as opposed to instructor activity.

(DEDEV) (Cassel, 1972c) is a decision development system that seeks to develop decision competency in individuals through the use of O-P-A-H-U-D-E. The eight modules used in this study were largely taken from this system. (DEDEV) employs a technique referred to by the acronym "O-P-A-H-U-D-E", in which each letter refers to a separate stage in the process. The first four stages represent conventional learning and deal with the dispensing of information in a climate filled with student action where "information about" is sought, and where "mastery" of such theory becomes a reality.

Each of the eight modules from DEDEV selected for this study were presented by the teacher to the students in the experimental classes. This was followed by activity where emphasis was placed on student interactions, first under the guidance of an instructor, and later in selected gaming simulation problems related to the presentation. The first four letters of the acronym representing the conventional learning are ("O-P-A-H") and refer to the following:

O - ORIENTATION - where carefully defined expected outcomes are explained to the participants, and the learning stage is set.

- P - PRESENTATION - presentation of carefully prepared theory in spaced learning situations by authoritative figures is made.
- A - ASSIMILATION - student discussion bearing directly on the presentation for purposes of understanding in terms of own background.
- H - HUMANIZATION - students seek to relate the newly presented theory in terms of human beings and experiences from knowledge.

The nonconventional aspects of "O-P-A-H-U-D-E" begin at this stage, deal with the last three letters ("U-D-E"), and involve "experience with" which leads to competency learning. An electronic high speed computer served as the principle vehicle to accomplish this objective. Each of these letters served for a separate stage in the process:

- U - UTILIZATION - the individual is assigned a surrogate role involving confrontation in decision making.
- D - DIFFERENTIATION - social gaming and simulation problems are selected, or individual may be assigned role of exploiter, instead of exploited in precisely the same social problem by computer.
- E - EVALUATION - the computer, after the individual completes ten social problems, informs subject (immediate knowledge of progress) of success in terms of corresponding group normative data.

The last three stages of "O-P-A-H-U-D-E" were implemented by each student's exposure to computerized gaming and simulation. Select portions of the present UWM Computerized Guidance Programs were used as the vehicle to initiate participants in dealing with exaggerated but realistic conditions of such social problems. Ego status, popularity, racial biases, and select areas of mental health were among the offerings in gaming and simulation (Appendix B).

Programs involved ten life problems that students first discussed and later related to people. Each student participant chose one topic area from the following and completed at least ten problems.

(Appendix B).

System 2 - Business 2 - Entrepreneur of small business problems.

System 3 - Exploit 4 - Problems relate to being cheated in the merchandising area.

System 4 - Vector Mixed - Weighing one's desires against one's values.

System 5 - Popularity 3 - Human relations/social attraction.

System 6 - Drugs - Senior High - Drug abuse confrontation.

System 7 - Racial - Biases and prejudices related to race.

System 8 - Unwed Mother Hazards - Sex and romance.

System 9 - Marriage Counseling and Family Life.

Correct answers to the questions programmed into the computer systems used were derived as follows: Correct answer for System 4 was based on balance of desire and values as described in each gaming problem. For all other systems used, correct response was based on "norm group" - typical individuals from 12 to 18 years of age with 500 or more individuals involved. Five points were given for correct response, three points for response agreed to by thirty-five percent or more of norm group, and one point for response agreed to by from thirty to thirty-five percent of the norm group.

After each ten problems a raw score is fed back through the computer to reflect the degree of success in decision making. The following are the levels of success (Cassel, 1975a):



1. Superior 45-50
2. Above average 34-44
3. High average 25-34
4. Low average 20-24
5. Below average 10-19
6. Very poor 0-9

If a client is unsure of how to answer a question, he may ask the computer for the likely consequence or usual hazards of the answer he would choose. To do this, he would type a "C1" for consequences, or a "H1" for the hazards of first response; a "C2" or "H2" for the second response, and so on. If he elects to examine hazards or consequences before making a choice, the first choice will receive credit if it is an acceptable answer. His answer will not be given any credit if he elects a wrong answer first.

This computer activity gives each student an opportunity to become involved in "experience with" which leads to competency learning.

#### Dependent Variable

The dependent variables are aspects of personal development which included decision making competency as measured by the Examination on Scientific Process of Decision Making, ego development as measured by the Ego Development Scale, Self Concept as measured by the Tennessee Self Concept Scale, and need gratification as measured by the Edwards Personal Preference Schedule. These four tests define the nature of the

structure of personal development as the concept is used in this study. Personal development has been identified as one factor with several categories. The dependent variable is defined as the acquisition and use of knowledge relative to developing effective personal development which is defined as meaning increased improvement in adaptation to the various areas of one's life space.

## FINDINGS

## Analysis of Data

The study was designed to measure the change in personal development skills in 63 subjects of the experimental group exposed to a series of eight teaching modules, relative to 63 subjects of the control group.

Psychological instruments were used to measure and assess the amount of change in the dependent variable. Personal development is measured by scores on decision making, ego development, self-concept, and need gratification respectively, as measured by the following instruments:

- a. Examination on Scientific Process of Decision Making (ESPDM),
- b. Ego Development Scale (EDS),
- c. Tennessee Self Concept Scale (TSCS), and
- d. Edwards Personal Preference Schedule (EPPS).

Null Hypothesis I:

There are no significant differences between the group means of the control and experimental group in decision making as measured by scores on the Examination on Scientific Process of Decision Making (ESPDM).

Data contained in Table 1 indicate statistically significant differences among scores between the experimental and control group on the process score of the (ESPDM), and Null Hypothesis I is, therefore, rejected.

There was no significant difference on the Philosophy scores. The graphic representation of these results are given in Figure 1.

Although there was no significant difference in the scores on philosophy of decision making between the control and experimental groups,

Table 1. Mean scores for experimental and control groups, difference scores and t-values for the Examination on Scientific Process of Decision Making

Need Area	Group Means		Difference (Exp.-Cont.)	t-value
	Experimental (N=63)	Control (N=63)		
Process	21.60	19.75	1.85	4.05**
Philosophy	20.86	20.37	.49	1.01
Total	21.22	20.05	1.17	3.02**

\*\* Significant at 0.01 level.

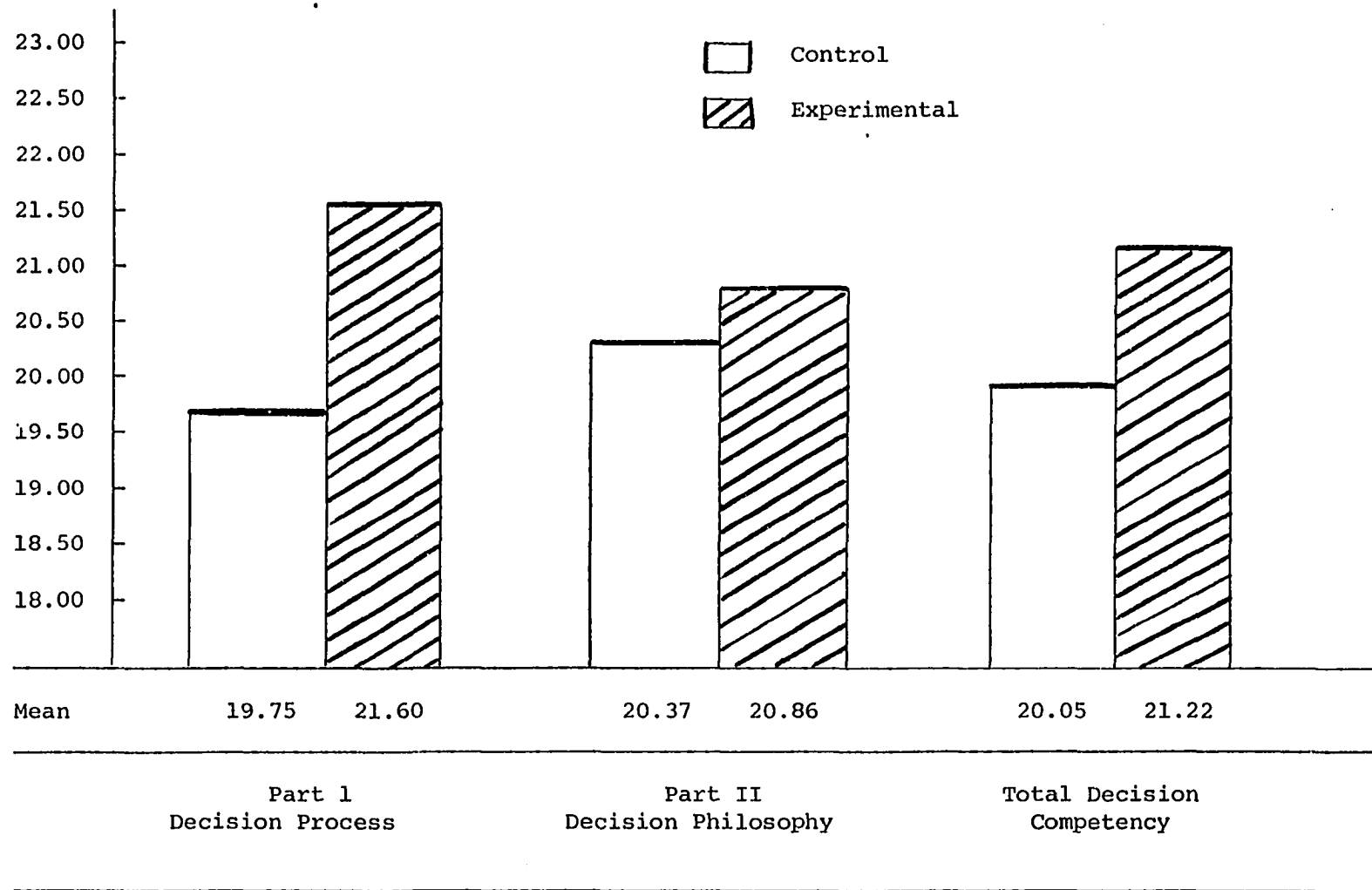


Figure 1. Comparison of control and experimental mean part scores on the posttest of the Examination on Scientific Process of Decision Making.

it should be noted that the difference in the total scores between the control and experimental group was significant at the .01 level of significance.

Null Hypothesis II:

There are no significant differences between the control and experimental group in ego development as measured by scores on the Ego Development Scale (EDS).

From Table 2, we observe from the mean gain scores (post-pre) that there were no significant differences between the experimental and control groups on the personal, social and educational areas of the Ego Development Scale (EDS).

It should be also noted that there were no significant differences between experimental and control groups on the mean pretest scores. Figures 2 and 3 present a visual comparison of pretest and gain scores on the Ego Development Scales of the control and experimental groups.

Null Hypothesis III:

There is no significant difference between the control and experimental group in self-concept as measured by scores on the Tennessee Self Concept Scale (TSCS).

Data contained in Table 3 indicate that there was no significant difference between the experimental and control groups in gain scores on the physical, moral, family, social and personal scales on the

Table 2. Mean scores on pre and posttests for experimental and control groups, gain and difference scores, and t-tests for the Ego Development Scale

Need Area	Test	Group Means		(Exp.-Cont.)	t-value
		Experimental (N=63)	Control (N=63)		
Personal	Pre	23.278	23.711	-.433	.81
	Post	23.754	23.422	-	-
	Gain (Post-Pre)	0.476	-0.289	0.765	1.40
Social	Pre	23.833	24.384	-.551	1.02
	Post	23.975	24.340	-	-
	Gain (Post-Pre)	0.141	-0.044	0.185	0.33
Educational	Pre	25.473	25.345	.128	.25
	Post	25.745	25.524	-	-
	Gain (Post-Pre)	0.272	0.179	0.093	0.19
Total	Pre	24.191	24.434	-.243	.56
	Post	24.494	24.433	-	-
	Gain (Post-Pre)	.303	-0.001	.304	.68

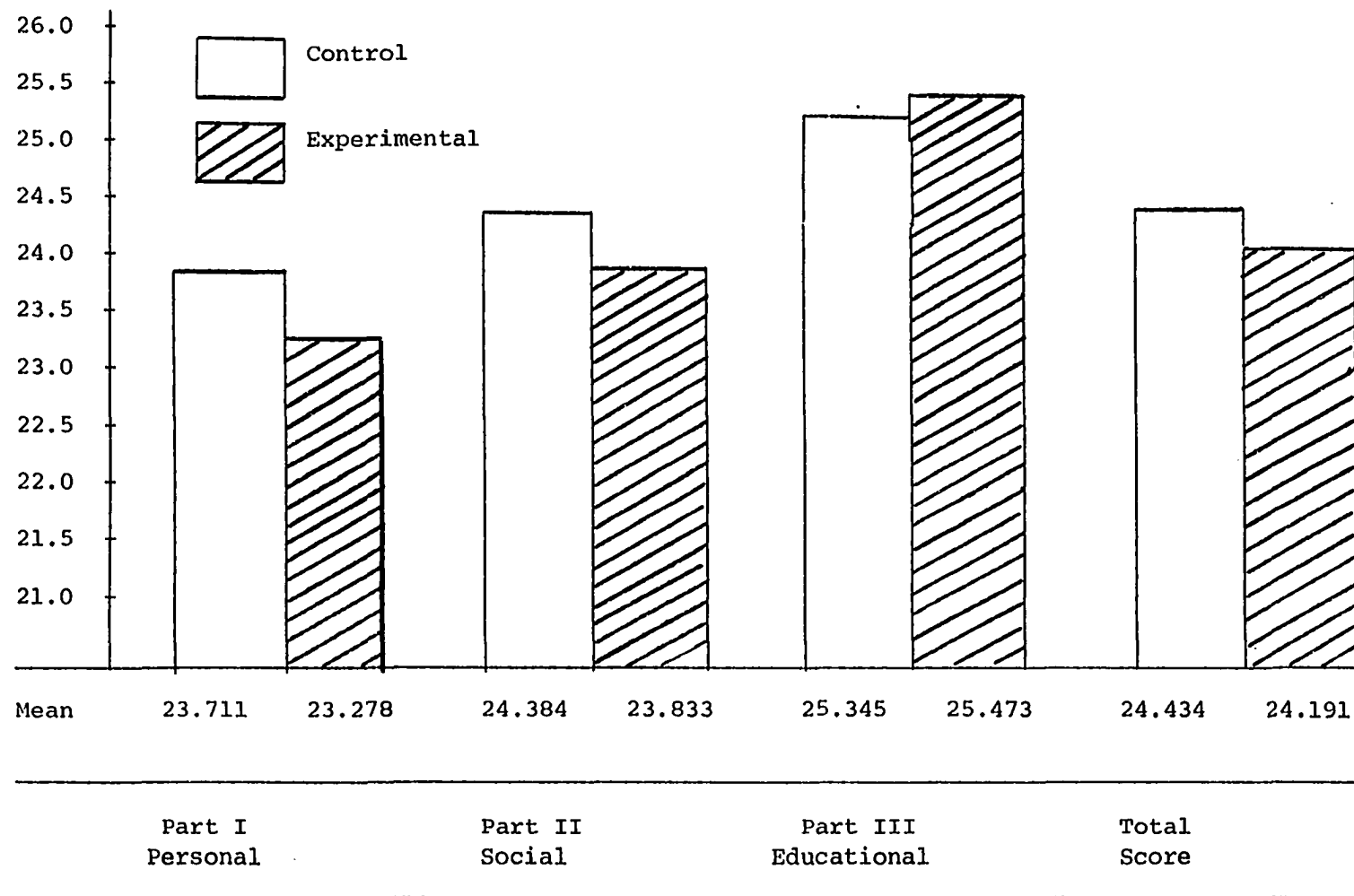


Figure 2. Comparison of pretest scores for the experimental and control groups on the Ego Development Scale.



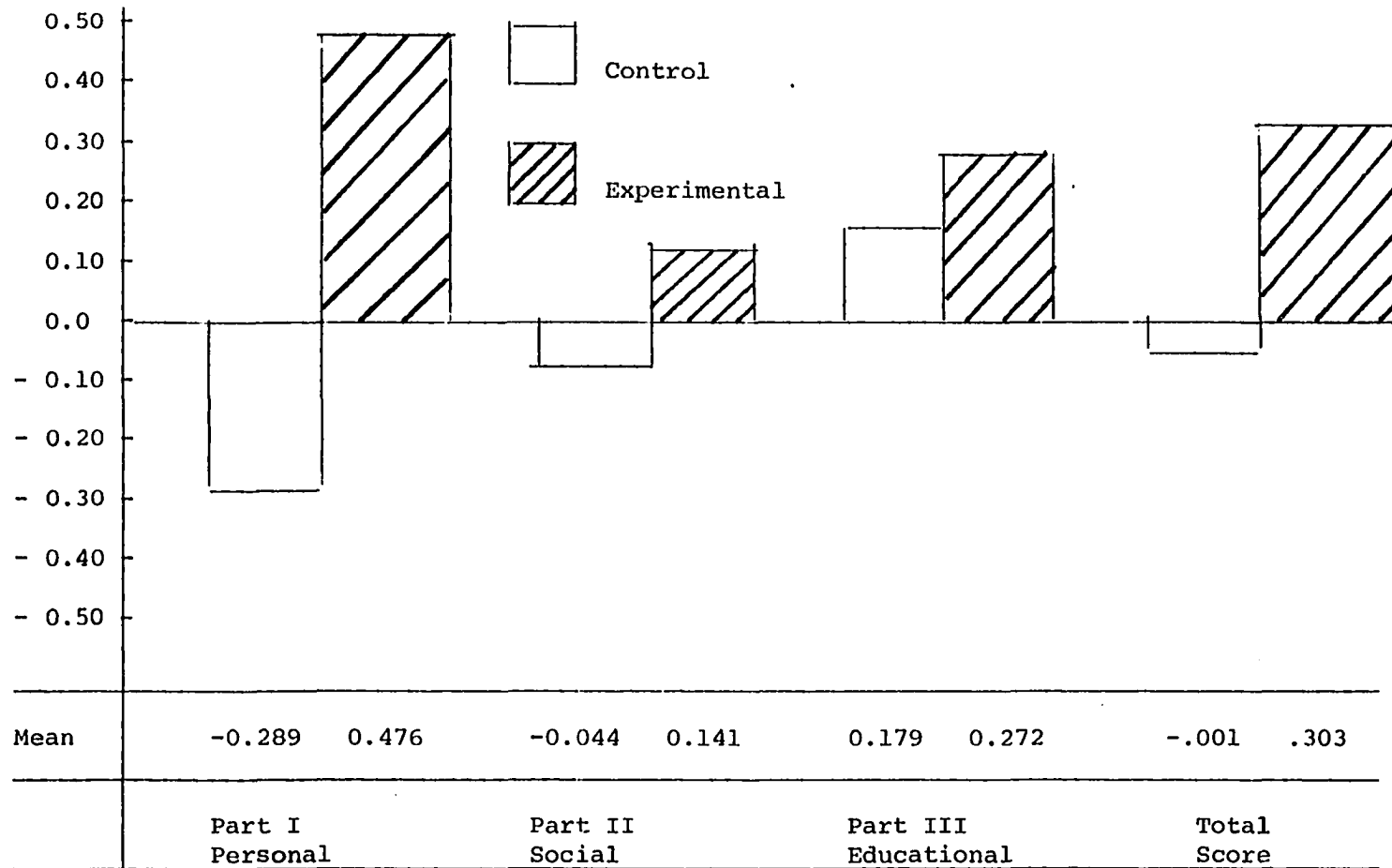


Figure 3. Comparison of gain scores for experimental and control groups on the Ego Development Scale

Table 3. Mean scores on pre and posttests for experimental and control groups, gain and difference scores and t-tests for the Tennessee Self Concept Test

Need Area	Test	Group Means		Difference (Exp.-Cont.)	t-value
		Experimental (N=63)	Control (N=63)		
Physical	Pre	58.583	59.063	-.480	.52
	Post	58.423	59.163	-	-
	Gain (Post-Pre)	-0.160	0.100	-.260	.26
Moral	Pre	60.334	59.301	1.033	1.24
	Post	59.320	60.030	-	-
	Gain (Post-Pre)	-1.013	.729	-1.742	1.93
Family	Pre	58.790	59.330	-.540	.77
	Post	59.344	58.992	-	-
	Gain (Post-Pre)	.554	-.338	.892	1.28
Social	Pre	55.171	56.760	-1.589	1.49
	Post	55.254	56.182	-	-
	Gain (Post-Pre)	.083	-.578	.661	.65
Personal	Pre	59.593	59.350	.243	.21
	Post	60.152	59.201	-	-
	Gain (Post-Pre)	.559	-.150	.709	.75
Total	Pre	58.472	58.765	-.293	.38
	Post	58.500	58.713	-	-
	Gain (Post-Pre)	.028	-.052	.080	.12

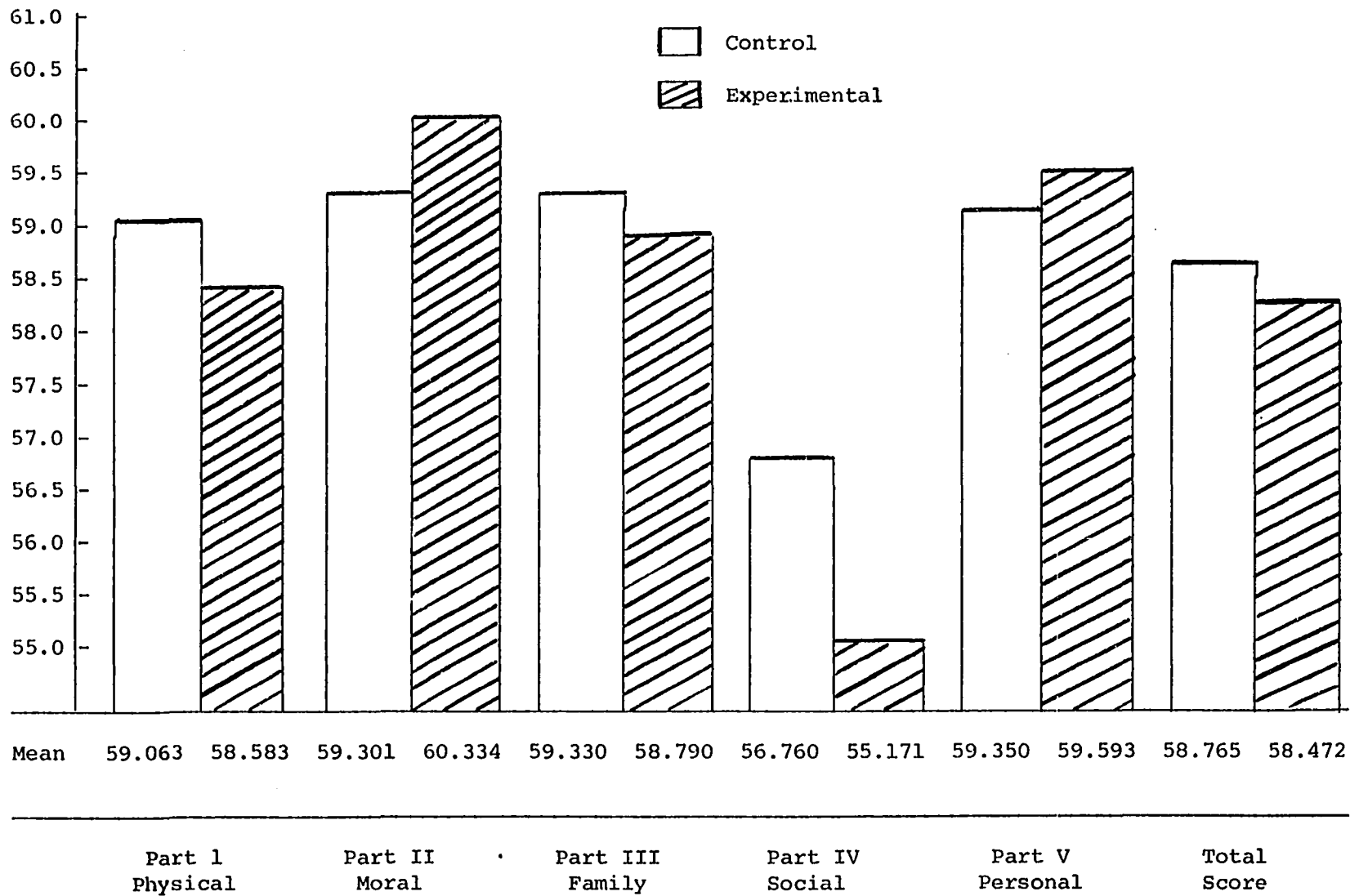


Figure 4. Comparison of pretest scores on the Tennessee Self Concept Scale for the control and experimental groups

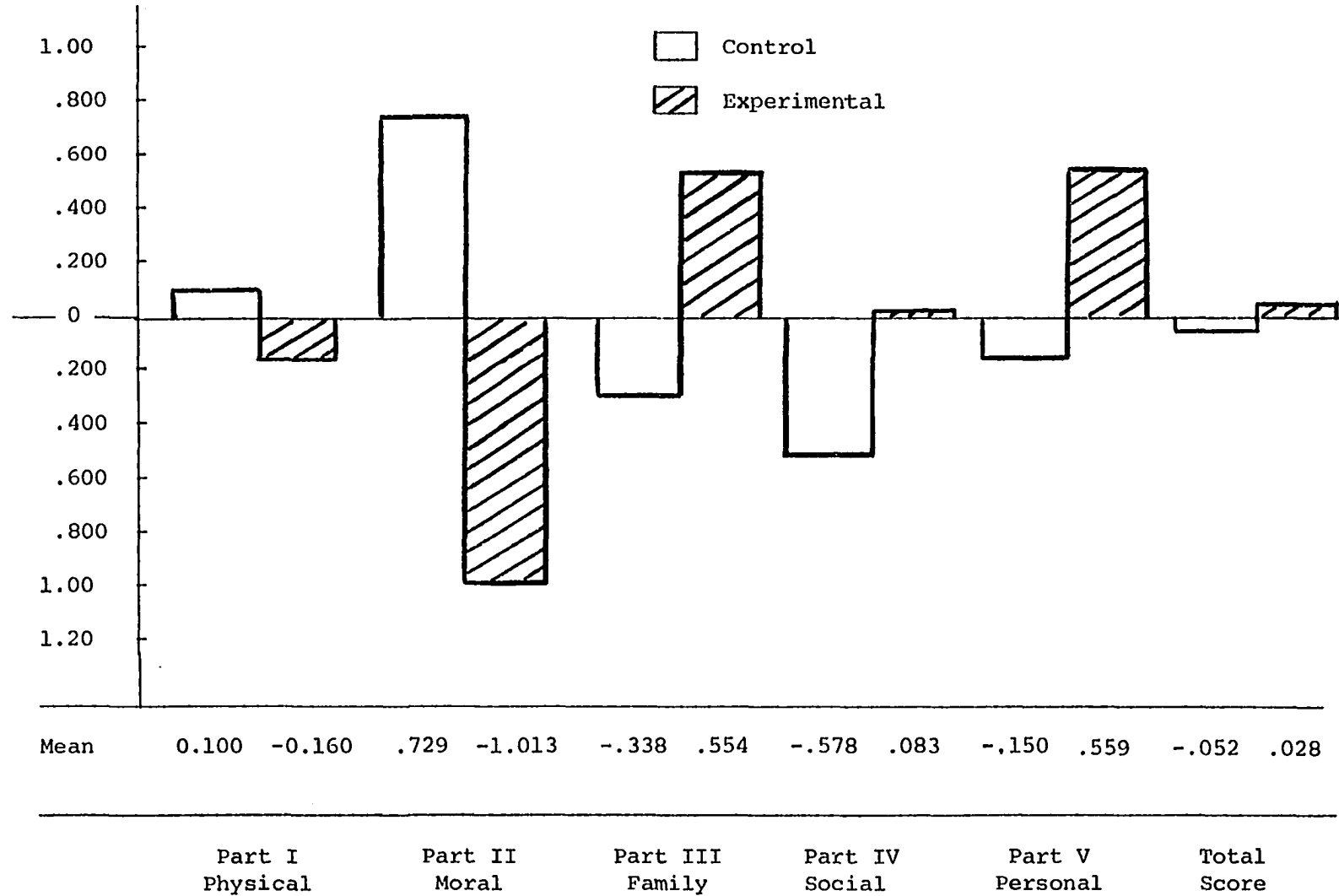


Figure 5. Comparison of gain scores for the control vs. experimental groups on the Tennessee Self Concept Scale

Tennessee Self Concept Scale.

Figures 4 and 5 present a visual comparison of pretest and gain scores on the five scales of the Tennessee Self Concept Scale of the control and experimental groups.

Null Hypothesis IV:

There is no significant difference between the control and experimental groups in need gratification as measured by scores on the Edwards Personal Preference Schedule (EPPS).

Reference is made to Table 4 and Figures 6 and 7, with attention to the columns marked with the "+" and "-" signs. In order to determine whether or not to reject Null Hypothesis IV, it was necessary to determine which of the part scores on the (EPPS) showed change in agreement with the theoretical hypothesis of study and supported "greater effectiveness in decision making and personal development." Based on the review of professional literature, it was determined that the three part scores on the EPPS marked with a "-" needed to show change in a negative direction to be in agreement with the theoretical hypothesis: (1) Deference - to let others make decisions for you (this reflects a condition of dependence, not consistent with "personal growth" or "increased effectiveness in decision making"); (2) Succorance - to seek help from others (this does not support the notion of "effective personal development"); (3) Abasement - to feel guilty and inferior (this does not support "effective personal development"). For purposes of

interpreting the data in Table 4, the reversed signs for these three part scores were utilized. Accordingly, for the three scores with a reversed sign, a lower score was considered to be more favorable and in support of the theoretical hypothesis of study.

A comparison of mean gain scores of the experimental and control groups, shown in Table 4, indicate two significant t-values. In the area of exhibition, a significant difference was found between the mean pretest scores of the control and experimental groups. The control group score was higher than the experimental group score. This would indicate that the individual in the control group, on the average, had a higher need to be noticed and be the center of attention.

There was also a significant difference in the gain scores of the experimental and control groups in the area of nurturance. The mean gain scores for control and experimental groups were opposite of the hypothesized direction. The control group gain score was negative and significant at the 0.01 level. The gain score of the experimental group was also negative but not significant. The difference in gain scores may indicate that traditional programs influenced the control group to play a more dependent role and have a significant lesser need to help friends and assist others, whereas the use of the experimental materials did the opposite. All other differences in gain scores were not significant.

Table 4. Mean scores on pre and posttests for the experimental and control groups, gain and difference scores and t-tests for the Edwards Personal Preference Schedule

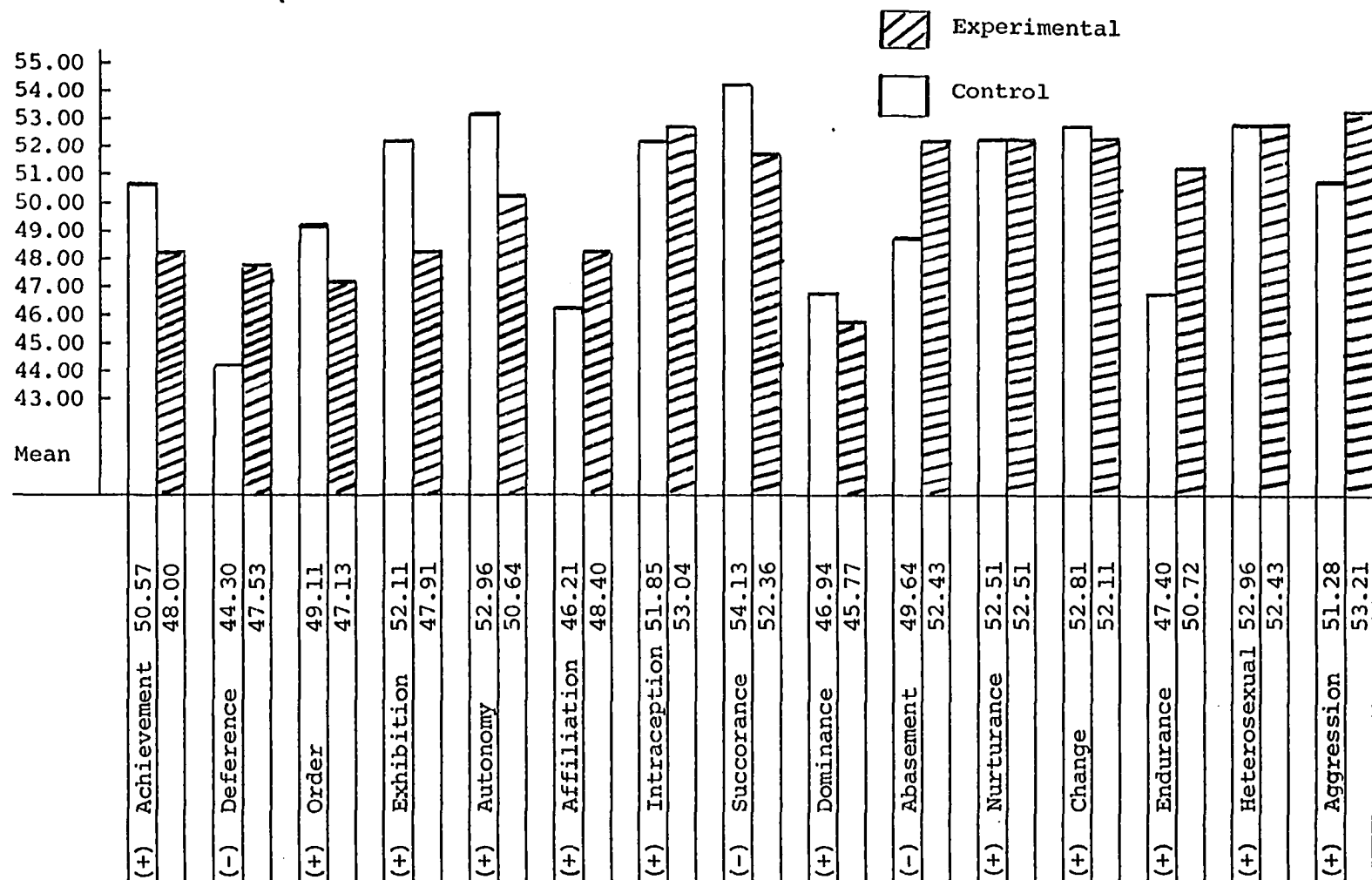
Need Area	Favorable Difference	Test	Group Means		Difference	t-value
			Experimental (N=47)	Control (N=47)		
Achievement	(+)	Pre	48.00	50.57	-2.57	1.20
		Post	48.74	54.34	-	-
		Gain (Post-Pre)	0.74	3.77	-3.03	1.43
Deference	(-)	Pre	47.53	44.30	3.23	1.66
		Post	46.11	45.89	-	-
		Gain (Post-Pre)	-1.42	1.59	-3.01	1.24
Order	(+)	Pre	47.13	49.11	-1.98	0.88
		Post	50.68	50.15	-	-
		Gain (Post-Pre)	3.55	1.04	2.51	1.04
Exhibition	(+)	Pre	47.91	52.11	-4.20	2.29*
		Post	49.81	53.04	-	-
		Gain (Post-Pre)	1.90	0.93	0.97	0.38
Autonomy	(+)	Pre	50.64	52.96	-2.32	1.25
		Post	50.87	54.57	-	-
		Gain (Post-Pre)	0.23	1.5.	-1.28	0.56
Affiliation	(+)	Pre	48.40	46.21	2.19	-0.92
		Post	50.30	43.66	-	-
		Gain (Post-Pre)	1.89	-2.55	4.44	-1.64
Intraception	(+)	Pre	53.04	51.85	1.19	-0.80
		Post	52.79	49.62	-	-
		Gain (Pre-Post)	0.62	-2.23	2.85	-0.74

\* Significant at .01 percent.

Table 4 (Continued)

Need Area	Favorable Difference	Test	Group Means		Difference	t-value
			Experimental (N=47)	Control (N=47)		
Succorance	(-)	Pre	52.36	54.13	-1.77	0.80
		Post	52.87	52.26	-	-
		Gain (Post-Pre)	0.51	-1.87	2.38	-1.03
Dominance	(+)	Pre	45.77	46.94	1.17	0.64
		Post	46.21	47.02	-	-
		Gain (Post-Pre)	0.45	0.85	-0.40	-0.19
Abasement	(-)	Pre	52.43	49.64	2.79	-1.22
		Post	50.57	49.79	-	-
		Gain (Post-Pre)	-1.85	0.15	-2.00	0.88
Nurturance	(+)	Pre	52.51	52.51	-	-
		Post	51.89	47.64	-	-
		Gain (Post-Pre)	0.62	-4.87	5.49	-2.04*
Change	(+)	Pre	52.11	52.81	0.70	0.35
		Post	51.77	51.53	-	-
		Gain (Post-Pre)	-0.34	-1.28	0.94	-0.47
Endurance	(+)	Pre	50.72	47.40	3.32	-1.69
		Post	51.19	49.83	-	-
		Gain (Post-Pre)	0.47	2.43	-1.96	0.88
Heterosexual	(+)	Pre	52.43	52.96	-0.53	0.23
		Post	52.06	54.53	-	-
		Gain (Post-Pre)	-0.36	1.57	-1.93	0.85
Aggression	(+)	Pre	53.21	51.28	1.93	-0.88
		Post	52.79	54.13	-	-
		Gain (Post-Pre)	-0.43	2.85	-3.28	1.64

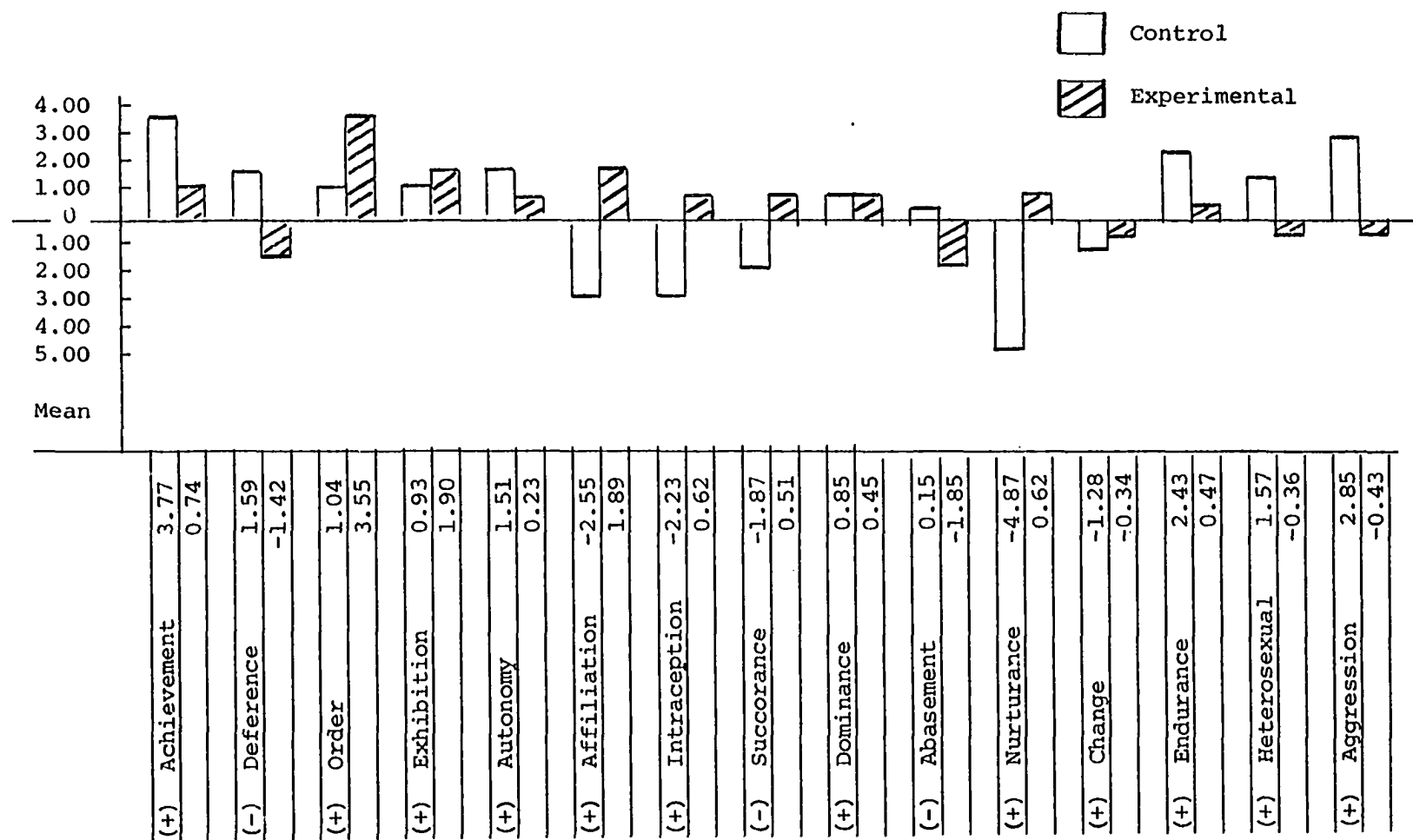




(+) depicts a plus difference as being favorable

(-) depicts a negative difference as being favorable

Figure 6. Comparison of pretest scores on the Edwards Personal Preference Schedule for the control and experimental groups



(+) plus difference as being favorable  
 (-) negative difference as being favorable

Figure 7. Comparison of gain scores on the Edwards Personal Preference Schedule for the control and experimental groups.

### Theoretical hypothesis

The main hypothesis of the study supposes: If a group of individuals are exposed to the treatment variable for developing decision making competency, they will demonstrate greater effectiveness in decision making and personal development than a corresponding group of individuals who are not exposed to the treatment variable, and as measured by change in scores on the Examination on Scientific Process of Decision Making, Ego Development Scale, Tennessee Self Concept Scale and Edwards Personal Preference Schedule.

The mean gain score of one out of the four dependent variable psychological instruments (ESPDM) for the experimental group showed statistically significant greater improvement over the corresponding mean gain score of the control group. Thus, generally speaking, the findings of the study only partially supported the theoretical hypothesis.

## DISCUSSION

The social significance of decision making appears to imply that the internal direction of man is determined by his choices or his decision making. His happiness and basis for future success are the result of his choices. Since decision making is a learned phenomena, it was the concern of this study to explore new ways to improve this process.

From Table 1 we observed a significant difference in mean scores of the control and experimental groups at the .01 level of significance in Part 1 (process) scores and total scores. Materials in Figure 1 give some insight into the magnitude of the differences between control and experimental group mean scores.

The process of decision making concerns itself with the mechanics and techniques where election of choice is emphasized. Experimental mean scores in process were significantly higher than control mean scores. This difference in mean scores is believed to be influenced by the experimental variable. The focus in the gaming and simulation model was an experience in decision making. A relationship between the improvement in the decision making score and what was done in the computer based gaming and simulation modules appears to be evident.

Varenhorst (1966, Hosford (1967), and Clark, Gelatt, and Levine, (1965), all viewed the process of decision making as being of prime importance. This concept is substantiated by the results observed

in Table 1 and Figure 1. The experimental variable involved activities that are related to making choices. One would logically expect that the quality of choice would be better for those individuals who had the computer experience. Materials presented in Figure 1 support this expectation.

No significant differences were found between the gain scores on the Ego Development Scale for both control and experimental groups. One could assume that no changes occurred or that this instrument was not sensitive to the kind of programs that were involved in either the experimental or the control groups.

However, observation of the scale scores indicated that ego development changed in the reverse direction for the control group, but in a positive direction for the experimental group.

On the Tennessee Self Concept Scale no significant differences were found between the gain scores for both control and experimental groups, and the data were not sufficient to reject the null hypothesis. Family, social and personal area scale scores changed positively for the experimental group, however, the magnitude of the score differences was not statistically significant.

Murray et al. (1938) relate that the concept of need represents the significant determinants of behavior within the person. They feel these needs are interacting with each other in a mutual influence. Effective decision making, which has been learned, fosters a more effective and realistic approach in dealing with one's needs.

Clinical impressions indicated that effective decision makers should have strong needs to succeed, be successful, have things organized, be able to persuade and influence others, and to keep at a job until it is finished. However, effective decision makers should have a low need to let others made decisions for them. High achievement, order, dominance, endurance, and low deference and abasement scores were thought to be associated with effective decision making. Poor decision makers should have just the opposite level scores in each of the above needs. Feeling inferior and guilty, as well as, seeking encouragement and affection were not considered to be desirable and were thought to be related more or less to less effective decision making.

In reviewing the mean scores in Table 4 and the data in Figures 6 and 7 for the differences in mean gain scores between the control and experimental groups on the Edwards Personal Preference Schedule, it was found that none of the need mean gain scores increased in the hypothesized direction of the clinical impressions. Only the nurturance mean gain score had a significant gain that was opposite to the hypothesized direction showing a negative difference in both the control and experimental groups. Since the control group mean score went down more than the experimental group mean score, it may have indicated that the course the students were taking fostered a lesser need to help others.

On exhibition, a significant gain score was noted showing a lower score for the experimental group than the control group. It is difficult to account for this significant difference since both control and

experimental groups showed no significance differences in mean gain scores in all areas with the exception of exhibition. One might reasonably conclude that test scores from one of the four dependent variables (EPDS) are in agreement with the theoretical hypothesis of the study and tend to partially support the general findings, i.e., "Computer-based decision competency activity tends to foster aspects of personal development in college students."

The findings tend to show that choices in career decisions may be more realistic when used with an objective approach to the election of choice. This study has described a process that can be used as a part of an instructional program to improve decision making and has made use of the research in the field to develop the experimental variable (teaching modules). It has also added the computer that provided experience with, through gaming and simulation.

The findings indicate that the series of eight modules produces significant change in effective decision making as measured on the "Examination on Scientific Process of Decision Making".

## SUMMARY AND CONCLUSIONS

Because of man's difficulty in adapting effectively to a changing society, it was felt that personal development would be improved if man could make better life decisions.

The main hypothesis of this study supposes: if a group of individuals is exposed to the treatment variable for developing decision making competency, members will demonstrate greater effectiveness in decision making and personal development than a corresponding group of individuals who are not exposed to the treatment variables.

The sample of the study consisted of 126 junior college students who were currently enrolled in the Social Science 151 course, "Psychology of Human Relations" at the Milwaukee Area Technical College. The statistical analysis used included the t-procedure on two independent groups.

The treatment variable consisted of eight separate modules that represented independently organized units of instruction with accompanying computerized units designed to make use of such information through gaming and simulation. These eight modules were deemed important in the acquisition of effective decision making skills through improved personal development. Using the "O-P-A-H-U-D-E" technique of Professor Cassel, each module or stage of decision making was presented to the experimental group by the instructor. After this stage was completed, each student in the experimental group was given the opportunity to react to realistic social problems through gaming and



simulation. Each student was provided with a computer terminal where he experienced at least one set of problems for one of the modules and was informed as to his or her decision making score and level of success.

The independent variable includes information dispensing, discussion of the stages of decision making, teacher interaction, and in part, the gaming and simulation of the computer in the form of computer interaction.

The main hypothesis implied that a group of individuals exposed to the treatment variables for developing decision making competency will develop greater effectiveness in decision making and personal development than a corresponding group of individuals not exposed to the treatment variables. The hypothesis was tested by the comparison of mean prescores and mean gain of the experiments and control groups scores on the Examination on Scientific Process of Decision Making, the Ego Development Scale, the Tennessee Self Concept Scale and the Edwards Personal Preference Schedule. The data partially supported the main hypothesis in showing statistically significant differences in the process and total scores on the Examination on Scientific Process of Decision Making. The other three tests showed no significant differences in the hypothesized direction. The findings generally support the notion that community college students can profit from meaningful personal development through programs that foster improvement in decision making.

### Conclusions

The sample used in the study was a highly selective group of individuals who may, by their educational level and intellect, be better decision makers than people in general. The improvement in the process of decision making in this and other studies appears to indicate the positive successes encountered by teaching decision making principles.

Implementation of a personal development program in conjunction with ongoing school programs in the junior and senior high levels appears to be desirable at this critical life stage. If a positive change was to be a desirable outcome at this important moment in time, early prevention appears as important as the maintenance or curative approach in later life stages.

The real value of the study may not have been fully realized until the decision competency and personal development have been applied to the everyday problems the adolescent or young adult may encounter today or in the future.

A follow-up study could provide important cues to the effectiveness and retention of personal development skills over time and maturational levels. It might also lead to the discovery of better instruments for the measurement of change in decision making ability.

Length of exposure may be a factor in the successful acquisition of personal development and decision making skills since students have different readiness levels for learning. Higher levels of success may have been realized if longer exposure periods were offered.

### Recommendations

The basic premise underlying this study was that man is a product of his own personal decision making and that competency in decision making should be an expected outcome in the educational offering. The findings demonstrate that growth in decision making competency may be derived from the experimental variable that has been utilized (teaching modules). It follows logically that a necessary requisite for personal development should incorporate activities and experiences related to the decision making process. Accordingly, the following recommendations appear in order: (1) Competency in decision making should be considered as a critical and important marketable skill in a community college offering. (2) The human relations course in the community college should incorporate aspects of decision making as a regular and integral part of the course. (3) Computer based learning activities provide experience necessary for effective learning, and such activities should be considered for similar experiences in other courses in the community college. (4) Follow-up studies should be made to determine the degree to which decision competency is evident in other areas of the life stage, i.e., course-work preparation, class attendance, and so forth. (5) All faculty members should be provided orientation in the effective use of the computer-based instruction methods.

## SELECTED REFERENCES

- American Personnel and Guidance Association. 1975. Convention summaries, abstracts, and research reports. New York, N.Y.: American Personnel and Guidance Association.
- American Psychological Association. 1966. Standards for educational and psychological tests and manuals. Washington, D.C.: American Psychological Association.
- American Psychological Association. 1974. Standards for educational and psychological tests. Washington, D.C.: American Psychological Association.
- Analysis of MATC enrollment. 1974. Milwaukee, Wis.: MATC Press.
- Asche, S. E. 1952. Social Psychology. Englewood Cliffs, N.J.: Prentice-Hall.
- Baker, Christine. 1975. The computer in the school. Arlington, Ind.: Phi Delta Kappa.
- Barber, Lucie W. 1968. Correlation of personality traits with success in scientific decision making. Educational Psychology 43: 1441-1458.
- Behnke, Jerome R. 1974. Computers: Use and application in counseling and guidance. Guidelines for Pupil Services 12, No. 1: 30-35.
- Betleheim, B. 1974. A home for the heart. New York, N.Y.: Alfred A. Knoph.
- Blau, P. M. 1956. Occupational choice: A conceptual framework. Industrial Labor Relations Rev. 9: 531-543.
- Bordin, E., Hachmann, B. and Segal, S. 1963. An articulated framework for vocational development. Journal of Counseling Psychology 10: 107-117.
- Buhler, C. 1974. The scope of humanistic psychology. Education 95, No. 1: 2-8.
- Bulack, Cletus R. 1950. American Educational Research Association Annual Meeting Bulletin, University of Cincinnati.
- Campbell, D. T. and Stanley, J. C. 1969. Experimental and quasi-experimental designs for research. Chicago, Ill.: Rand McNally and Company.

Carkhuff, Robert R. and Berenson, Bernard G. 1967. Beyond counseling and therapy. New York, N.Y.: Holt, Rinehart, and Winston, Inc.

Cassel, R. N. 1969. Computer assist counseling for development of cultural compatible ego-ideal imagery. Psychology in the Schools 6, No. 3: 289-291.

Cassel, R. N. 1970. Computer assist counseling by the systems analysis approach. World Journal of Psychosynthesis 2, No. 7: 35-41.

Cassel, R. N. 1971. UWM FORTRAN measurements programs. Jacksonville, Ill.: Psychologists and Educators, Inc.

Cassel, R. N. 1972a. Different types of computer - based interaction modes. College Student Journal 6, No. 3: 74-76.

Cassel, R. N. 1972b. Helping relationships and decision making. World University of Psychosynthesis 4, No. 7: 36-40.

Cassel, R. N. 1972c. The UWM computerized decision development systems (DEDEV). Psychology 9, No. 3: 40-46.

Cassel, R. N. 1973a. The computerized decision development system - (DEDEV). Jacksonville, Ill.: Psychologists and Educators.

Cassel, R. N. 1973b. The computerized human relations program. College Student Monograph 7, No. 2.

Cassel, R. N. 1973c. The computerized personal development program (PERSDEV). Jacksonville, Ill.: Psychologists and Educators, Inc.

Cassel, R. N. 1973d. Decision counseling. Education 93, No. 3: 217-227. Also Chronicle Guidance Professional Service No. 701.

Cassel, R. N. 1973e. Fundamentals of humanistic psychology. World Journal of Psychosynthesis 5, No. 4: 21-24.

Cassel, R. N. 1973f. Psychological aspects of gaming in relation to child play. College Student Journal 7, No. 1: 17-20.

Cassel, R. N. 1973g. Psychological aspects of human freedom. Psychology 10, No. 4: 37-39.

Cassel, R. N. 1973h. The psychology of decision making. North Quincy, Mass.: The Christopher Publishing House.

Cassel, R. N. 1974a. The college penal experience alternative (Copex). World University of Psychosynthesis 6, No. 1: 30-36.

Cassel, R. N. 1974b. The ego development scale manual. Jacksonville, Ill.: Psychologists and Educators Inc.

Cassel, R. N. 1974c. Instructional gaming and simulation. Contemporary Education 45, No. 2: 100-105.

Cassel, R. N. 1974d. Use of the computer in relation to critical guidance factors. Report of 1974 National Computer Conference and Exposition. McCormick Place, Chicago, Ill. May 6-10.

Cassel, R. N. 1975a. The computerized decision development system - (DEDEV). Munster, Ind.: Psychometric Affiliates.

Cassel, R. N. 1975b. The computerized vocational guidance system (VOCGUID). Munster, Ind.: Psychometric Affiliates.

Cassel, R. N. and Hecchbergen, R. L. 1975. Leadership development: Theory and practice. North Quincy, Mass.: The Christopher Publishing House.

Cassel, R. N. and Stroman, S. D. 1974. Evaluation of the UWM computerized decision development system. Journal of Instructional Psychology 1, No. 1: 12-22.

Clark, R., Gelatt, D. B. and Levine, L. 1965. A decision making paradigm for local guidance research. Personnel and Guidance Journal 44: 40-51.

Cochrane, J. L. and Zeleny, M. 1973. Multiple criteria decision making. Columbia, S.C.: University of South Carolina Press.

Cronbach, L. V. 1951. Coefficient alpha and the internal structure of tests. Psychometrics 16: 296-334.

Doise, Willem. 1975. The cognitive structuring of individual and collective decisions of adults and children. Revue de Psychologie et des l'Education 8, No. 2: 133-146.

Downie, N. M. and Heath, R. V. 1970. Basic statistical methods. New York, N.Y.: Harper and Row, Inc.

Draper, N. R. and Smith, H. 1966. Applied regression analysis. New York, N.Y.: John Wiley & Sons, Inc.

Edwards, Allen L. 1954. Edwards personal preference schedule and manual. New York, N.Y.: The Psychological Corporation.

- Fagin, D. 1953. Guiding the vocational interests of the child. *Education* 74, 171-179.
- Ferguson, George A. 1966. *Statistical analysis in psychology and education*. 2nd ed. New York, N.Y.: McGraw-Hill Book Company.
- Fitts, W. H. 1964. *Tennessee self-concept scale and manual*. Nashville, Tenn.: Counselor Recordings and Tests.
- Freud, A. et al. 1965. *The psychoanalytic study of the child*. New York, N.Y.: International University Press.
- Freund, John E. 1967. *Modern elementary statistics*. Englewood Cliffs, N.J.: Prentice-Hall, Inc.
- Gelatt, D. B. 1973. The decision making program. *The College Board Review* 74, No. 90: 14-16.
- Ginzberg, Eli. 1952. Toward a theory of occupational choice. *Occupations* 30: 491-494.
- Ginzberg, Eli, Ginzberg, J. W., Axelrad, S., and Herma, J. L. 1951. *Occupational choice*. New York, N.Y.: Columbia University Press.
- Glanz, Edward C. and Walston, Ernest B. 1958. *An introduction to personal adjustment*. Boston, Mass.: Allyn and Bacon, Inc.
- Grayson, L. P. 1972. Challenge educational technology. *Science* 175 March 17: 1216-1222.
- Guilford, J. P. 1964. *Fundamental statistics in psychology and education*. 4th ed. New York, N.Y.: McGraw-Hill Book Company.
- Hall, Clavin S. and Lindzey, Gardner. 1957. *Theories of personality*. New York, N.Y.: John Wiley & Sons, Inc.
- Hilton, K. L. 1962. Career decision making. *Journal of Counseling Psychology* 9: 291-298.
- Holland, John L. 1965. A psychological classification scheme for vocations and major fields. *Journal of Counseling Psychology* 13: 278-288.
- Holland, John L. 1966. *The psychology of vocational choice*. Waltham, Mass.: Blaisdell Press.
- Hoppock, Robert. 1957. *Occupational information*. New York, N.Y.: McGraw-Hill Book Company, Inc.

Hosford, Ray E. 1967. Product of process - implications for decision making. Washington, D.C.: American Psychological Association.

Joe, V. C. 1971. Review of the internal-external control construct as a personality variable. Psychological Reports 28: 619-640.

Katz, Martin R. 1969. Can a computer make guidance decisions for the students? College Board Review 72: 13-17.

Katz, Martin R., Chapman, Warren and Godwin, William. 1972. SIGI-A computer-based aid to career decision making. EDUCOM Bulletin 2.

Lessinger, L. M. 1969. Accountability for results: A basic challenge for American schools. American Education 5, No. 6: 2-4.

Lewin, K. 1936. Principles of topological psychology. New York, N.Y.: McGraw-Hill Book Company, Inc.

Maslow, A. H. 1971. Personality problems and personality growth. College Student Journal 5, No. 3: 1-13.

MATC Bulletin 529. 1975. Milwaukee, Wisconsin: MATC Press.

Meyers, Lawrence S. and Grossen, Neal E. 1974. Behavioral research, theory, procedure, and design. San Francisco, Cal.: W. H. Freeman and Company.

Misiak, Henryk and Sexton, Virginia S. 1973. Phenomenological, existential, and humanistic psychologies: A historical survey. New York, N.Y.: Grune & Stratton.

Morris, John L. 1966. Propensity for risk taking as a determinant of vocational choice: An extension of the theory of achievement motivation. Journal of Personality and Social Psychology 3: 328-335.

Mosak, H. Ed. 1974. Alfred, Adler. Park Ridge, Ohio: Noye Press.

Murray, H. A., et al. 1938. Explorations in personality. New York, N.Y.: Oxford University Press.

Myers, George E. 1941. Principles and techniques of vocational guidance. New York, N.Y.: McGraw-Hill Book Company, Inc.

Norrel, Gwen and Gruter, H. 1960. Interest awareness as an aspect of self-awareness. Journal of Counseling Psychology 7: 289-292.



- O'Hara, R. P., and Tiedeman, D. V. 1959. Vocational self concepts in adolescence. *Journal of Counseling Psychology* 6: 292-301.
- PCOMPA factor analysis. 1974. Program in the Statistics Job Series. Milwaukee, Wis.: University of Wisconsin, developed under Dr. Chester Harris.
- Prediger, Dale. 1974. The role of assessment in career guidance: A reappraisal. *Impact* 3, No. 3-4: 15-21.
- Roe, Anne. 1967. Early determinants of vocational choice. *Journal of Counseling Psychology* 4: 212-217.
- Roe, Anne, Hubbard, W. D., Hutchinson, Thomas, and Batsman, William. 1968. Job changes and the classification of occupations. *Journal of Counseling Psychology* 13: 287-393.
- Rogers, Carl. 1974. Can learning encompass both ideas and feelings? *Education* 95, No. 2: 103-114.
- Rotter, V. B. 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs* 80, No. 1: 609.
- Sanderson, Herbert. 1954. Basic concepts in vocational guidance. New York, N.Y.: McGraw-Hill Book Company, Inc.
- Schramm, W., ed. 1972. Quality in instructional television. Honolulu: The University Press of Hawaii.
- Siegel, Sidney. 1956. Nonparametric statistics for the behavioral sciences. New York, N.Y.: McGraw-Hill Book Company, Inc.
- Small, L. 1953. Personality determinants of vocational choice. *Psychological Monographs* 67: 1-21.
- Stanley, J. C. 1969. Experimental and quasi-experimental designs for research. Chicago, Ill.: Rand McNally and Company
- Super, Donald E. 1951. Implementing a self-concept. *Occupations* 30: 88.
- Super, Donald E. 1953. A theory of vocational development. *The American Psychologist* 8: 185-190.
- Super, Donald E., Crites, J. O., Hummel, R. C., Moser, H. P., Overstreet, P. L., and Warnath, C. F. 1957. Vocational development, a framework for research. New York, N.Y.: Teachers College Bureau of Publications.

- Switzer, K. Gregg, Austin, E. Miller, Jerome, S. and Young, Robert K. 1962. Building experiences in occupational choice: A test of Roe's hypothesis. *Journal of Counseling Psychology* 9: 45-48.
- Tiedeman, D. 1968. Decision and vocational development: A paradigm and its implications. *Vocational Behavior* 1968: 129-136.
- Tiedeman, D. 1972. An informal assessment of the University of Wisconsin - Milwaukee computerized guidance program. Palo Alto, Cal.: Inst. for Research in Education, American Institutes for Research.
- Tiedeman, D. and others. 1970. An information system for vocational decisions, final report. Cambridge, Mass.: Harvard University, Graduate School of Education.
- Utton, T. C. 1962. Recalled parent-child relations is determinant of vocational choice. *Journal of Counseling Psychology* 9: 49-53.
- Varenhorst, Barbara B. 1966. How students use values in decision making. Speech at APGA Convention. Personnel and Guidance Association Convention, Washington, D.C.
- Vellutino, Frank R. 1964. Decision making as a function of the self-concept. *Dissertation Abstracts* 25: 3104.
- Wigent, Philip A. 1972. A study of personality variables related to career decision making abilities of community college students. *Dissertation Abstracts International* 33: 3314A.
- Ziller, Robert C. 1957. Vocational choice and utility for risk. *Journal of Counseling Psychology* 4: 61-64.
- Zytowski, Donald G. 1968. Vocational behavior: Readings in theory and research. New York, N.Y.: Holt, Rinehart, and Winston, Inc.

## ACKNOWLEDGMENTS

I would like to express my gratitude to a number of individuals who have provided support and guidance throughout graduate training and through the completion of this dissertation.

Dr. Russell Cassel deserves a thank you for his pioneering achievements in the field of decision making, as well as his psychological and consultive support.

Mr. Avril Farris, Administrator at the Milwaukee Area Technical College was instrumental in providing the population for this study.

I would like to thank the dissertation committee members who provided constructive ideas, time and support to this endeavor. The committee was composed of Professors Gordon Hopper, Roy Hickman, George Kizer, and H. C. Chang. Dr. Ray Bryan, my advisor and committee chairman, receives a special thank you. He has set high, but realistic goals, provided constructive ideas and useful insights, and has expended much time and effort in my behalf.

Dr. Roy Hickman provided additional time, effort and consultative help with the statistical analysis and deserves special recognition.

**APPENDIX A: DECISION MAKING MODULES**

LOCUS OF CONTROL:

Locus of control represents the work of Rotter and Joe (1966, 1971) and deals with depicting the difference between belief and luck and scientific decision making. The computerized program is based on the test developed by Rotter, and with the computer informing the individual the degree to which his value system is based on "luck" as opposed to "internal control" or personal decision making. The main points of these presentations are as follows:

1. Systematic psychology - compares operation conditioning with humanistic psychology.
2. Peripheral schools - trial and error and operant conditioning.
3. Central schools - perception and decision making.
4. Genetic epistemology - growth in knowledge and insight.
5. Irreality concept - disparity between real and perceived.
6. Operant conditioning - contingencies and reward dictate behavior.
7. Correlates of persuasion - psychological dynamics influence will and behavior.
8. Hidden persuaders - esthetics serve to influence man.
9. Religion and man - lack of initiative and dependency.
10. Decision Making - personal election of choice or goals.

SYSTEMS ANALYSIS FOR DECISION MAKING:

This module seeks to describe the scientific process for the selection of alternative courses of action by the subject and represents the person's decision making process. The following major points are involved:

1. Expected Outcomes - stated in terms of human performance that can be evaluated.
2. Measuring Progress - defined criteria for continued feedback to subject on knowledge of progress towards expected outcomes.
3. Constraints - involves a delimiting of activity or experience involved.
4. Range of Choices - human choices exist in a social arena and range from conformity to its antithesis through some middle ground.
5. Usual Hazards - risks involved that are external to the subject involved and which hover in the future.
6. Likely Consequences - risks which have impacted on the participant and which influence change in one's life.
7. Merit Analysis - comparative assessment of the choices available in relation to expected outcomes.
8. Moment of Truth - individual alone elects choices for action by accepting alternative with greatest promise.
9. Ego Involvement - acceptance of chosen course of action.
10. Pursual Strategy - plan for implementation of alternative course.

#### VECTOR AND VALENCE ANALYSIS FOR DECISIONS:

This module emphasized the fact that man is a fallible creature, and also that he simply doesn't always do what he knows and sometimes believes to be ideal. It represents a system for election of choices or alternative courses for action where what is ideal or believed to be best is not elected. The following major points are involved in this stage:

1. Vector - the distinguished path of behavior and depicts the strength of valences or desired present.
2. Valences - forces that incite and direct behavior with positive ones oriented towards goals and negative ones away.
3. Two Positive Valences - two strong desires, needs, or tensions with the stronger taking precedence.
4. One Positive and One Negative Valence - something one desires but must forego pain to achieve.
5. Two Negative Valences Bounded - two choices both of which are disliked but one of which must be accepted.
6. Personal Needs - represent the ungratified desires of individual.
7. Personal Value System - rules of the culture as they are accepted by the individual involved.
8. Merit Analysis - comparing needs for moment against value system of individual to elect choice for action.
9. Moment of Truth - choice determined by how badly individual desires against price one is willing to pay.

#### FUNCTIONS OF THE EGO:

The function of the ego is to gratify the internal need of man for the use of external manipulation. The ego serves man by reducing his tensions, and by doing this, gratifies his needs.

#### Ego:

This stage covers the first eighteen months of life when there is no ego present, through the stages of recognition of parents, and, eventually, of himself.

Self:

The self is the image or picture one has of the operating ego, or the pictures others have. The self and personality are one and the same thing, and they represent the way one appears both to self and to others, and which may not be the same.

Id:

The id is the sensual person and represents the would-be self.

Ego Ideal:

The ego ideal of the individual is that part of the individual's psychic structure that functions when behavior is in agreement with one's value system. It creates feelings of satisfaction and personal esteem under such conditions.

Conscience:

This represents the complementary function of the ego ideal. It is like a secret police department within the individual that monitors every act, feeling, and intent on the part of an individual. The conscience derives largely from the traditions of the society of which the individual is a part.

Basic Personality:

The basic personal function taking place between the ages from two to about five years in the life of a child are characterized by the child asserting his own thinking.



Self Concepts:

Persons may play many different roles in life, often switching from one to another in the same period of time. Five self-concepts are described as follows:

1. Physical Self
2. Family Self
3. Moral Self
4. Social Self
5. Personal Self

Ego Strength:

This reflects the ratio of negative and positive feelings an individual may exhibit in their feelings. Where negative are more numerous than positive, the ego strength is too low to reason at rational levels. Where positive feelings are more numerous than negative ones, decision making through the use of intellectual deliberation should be the rule.

Ego Development:

Ego development undergoes rather well-defined series of progressive stages.

FIRST STAGE - stable world of objects - infant to 18 months; where integrated wholeness and decentering of Piaget are completed.

SECOND STAGE - impulse stage from about 2 to 5 years of age, and generally coincides with the formation of one's basic personality formation.

THIRD STAGE - self-protection from about 6 to 8 years of age, where confrontation serves to forge a precisely personality functioning.

FOURTH STAGE - conscientious stage from about 9 to 15 years of age, and involving motives and consequences and scientific decision making becomes essential.

FIFTH STAGE - autonomous stage from 15 years and upwards, where a complete sense of individuality appears to be present, but where independence has been established for emotions and inner conflict.

SIXTH STAGE - transcending conflict with reconciling of polarities, and with effective sensitivity to own self-actualization and real progress experienced in that direction. Effective decision making is a necessary requisite for this stage of ego development.

#### Esteem:

This stage is concerned with the dignity and personal worth of the individual.

#### GROUP DYNAMICS AND HUMAN RELATIONS:

This stage is concerned with the inter-relations of people, and the identification of those phenomena that cause people to dislike one or to like one, and to understand the characteristic consequence of each. The general productivity, morale, and happiness of an individual is directly related to his competency in the handling and understanding of group dynamics. The following are critical factors believed to be involved in this area:

1. Job Success - critical to promotion and job growth in individual.
2. Morale - critical to morale and happiness of individual.
3. Personal in Nature - deals squarely with personal qualities in an individual; not in his technical competency.
4. Social Climate - group dynamics create the social climate for all persons involved.

5. Level of Aspiration - creates the world of reality or irreality in which individuals live and perceive.
6. Positive Influence - characteristic factors that produce support and liking of individuals and the consequence of same.
7. Negative Influence - characteristic factors that repulse individuals and the likely consequences.
8. Sensitivity Training - forging of the ego through personal confrontation and crisis development techniques.
9. Group Goals - factors involved in the setting of group goals.
10. Group Problem Solving - this deals with group goal striving and the general pursual of goal strategy involved.
11. Social Problems - nature and character of present social problems.
12. Etiology of Social Problems - general correlates and causes of social problems.
13. Nature of Disadvantages - the power struggle and personal biases of human beings.
14. Helping Disadvantages - human equality for all involves.

#### HUMAN FREEDOM HIERARCHY:

This stage seeks to demonstrate that freedom from enslavement is more, much more, than failing to obey the will of another, and that not obeying the will of another is simply the beginning of freedom for individuals. Freedom, then exists on a scale which begins with the elimination of misery and want, and then emerges with the presence of positive affect, and ranges as follows:

1. Positive Affect - beginning of human freedom.

2. Negative Affect - serves to create a need for positive affect, and tends to make it the more valuable - men and mice alike value most that which they have had to pay for with personal discomfort.
3. Self - Initiated Action - this represents the simplest kind of human freedom, but indispensable to greater freedom.
4. Anxiety Reduction - this serves to give increased value to freedom.
5. Growth Experience - to grow to greater power and insights, represents still another higher level of freedom.
6. Goal Progress - when man makes real progress towards self-expectation he achieves still greater freedom.
7. Freedom for Movement - the ultimate goal in human freedom is to increase the range and number of choices available, or the greatest space for freedom of movement of the individual involved,

#### DECISION COUNSELING:

Change in an individual can only take place in the future, for the past is history and not subject to change. The single critical factor involved in change of the future entails the election of alternative courses of action, and that, to be sure, entails decision making. Many times this simply means that counseling becomes decision counseling, and the following critical factors are involved:

1. Ego Strength - sufficient positive affect to permit the individual to deliberate in relation to the future.
2. Expected Outcomes - the election of choices is determined largely on the basis of expected outcomes.
3. Decision Theory - the election of choices is determined largely on the basis of expected outcomes.

4. Decision Competency - from the knowledge of decision making to skill or competency in the process necessitates surrogate role playing in "meaty" gaming and simulation problems.
5. Personal Goals - establishment of goals personally represents real progress to freedom and independence.
6. Ego Involvement - there must be some acceptance of the goals being established for real freedom.
7. Pursual Strategy - goal-setting does not in and by itself provide strategy for goal pursual, but following the ego involvement there is development of such strategy.
8. Independence - this represents the termination of counseling, and suggests that a state of the interdependence of independent individuals have emerged.

APPENDIX B: GAMING AND SIMULATION PROBLEMS

SYSTEM 2

This is module two of the computerized business operations system (Business 2). It consists of 10 problems dealing with owners of business or the entrepreneur. Read each problem carefully and then select the best answer as you see it. The computer will not go to the next problem until you get the correct answer. When you are ready to begin press the return button.

1. You are the manager of a department store. You have instructed your employees not to pressure the customers. However, you have been receiving complaints from the customers that the salespeople do not pay enough attention to them and give them the assistance that they require. What is the best thing to do?

1. Tell the employees to be more aggressive with the customers.
2. Let your salespeople continue to deal with the customers as they have.
3. Put up signs in your store that it is a help-yourself store.
4. Have your employees ask the people if they need any help when they come in, and if so, the employees should offer them the assistance they need.
5. Try to hire some salespeople who are more skilled at working with the customers.

=4

Yes, this is the correct response. Go to the next problem.

2. You are the manager of a department store. One of your female employees is very aggressive and she tries to pressure the customers into buying things. You know she does this because she wants to do a good job, and she doesn't understand that customers find this annoying. You have had many complaints about the girl from your customers. What is the best thing to do?

1. Fire the girl.
2. Let the girl continue to be aggressive.
3. Put the girl in another position other than a salesgirl.
4. Talk to the girl and tell her that she is offending the customers and must be less aggressive.
5. Have one of the other salesgirls talk to the girl and tell her what she is doing wrong.

=4

Yes, this is the correct response. Go to the next problem.

3. You are the manager of a department store. You get much of your merchandise from a distributor in a large city about a hundred miles away. Very often, you will advertise a sale with the intention of having the merchandise sent in time for the sale. Sometimes the distributor doesn't get the merchandise in on time, and the customers are mad. This is embarrassing to you, and it is hurting your business. What is the best thing to do?

1. Put your order for merchandise in sooner.
2. Find another distributor of the products you need.
3. Allow the situation to continue.
4. Apologize to your customers when something like this happens, and tell them the sales have been delayed.
5. Talk to the distributor and tell him that unless he can deliver the merchandise when promised, you will be forced to change distributors.

=1

No. There is a better answer. Try again.

=5

Yes. This is the correct response. Go to the next problem

4. You are the manager of a store. Due to the rising inflation, it has become necessary for you to raise your prices. Many of your customers are complaining about this increase and some have told you that they will no longer patronize your store. If you lower your prices, you will be forced to take a loss in profit. What is the best thing to do?

1. Take an advertisement in the paper and explain the rising cost of your products as a result of inflation.
2. Lower your prices to what they were last year.
3. Try and minimize your other expense so you won't have to raise your prices so much.
4. Cut your employees wages so you can lower your prices again.
5. Keep your prices at their current level.

=3

Yes. This is the correct response. Go to the next problem.



5. You are the manager of a department store. You have many salesgirls working for you, and you are pleased with most of them. There is one, however, who dresses sloppily and presents a poor impression to the customers. Her clothes do not appear to be ironed and her stockings often have runs in them. You know that she is from a disadvantaged area and perhaps she doesn't know how to look any better. What is the best thing to do?

1. Fire the girl.
2. Ask one of the other salesgirls to give her some advice on how to improve her appearance.
3. Tell the girl yourself that she looks sloppy and must change.
4. Give the girl a raise so she can afford better clothes.
5. Ask a beauty consultant to come to the store one day and meet with the salesgirls and tell them how to look their best.

=3

No. There is a better answer. Try again.

=5

Yes. This is the correct response. Go to the next problem.

6. You are the manager of a large clothing store. The woman who orders the women's clothing has worked for you for over fifteen years. She is very conservative in her taste and does not order the type of clothing that young girls are wearing today. Therefore, your sales are suffering because young girls do not patronize your store. What is the best thing to do?

1. Replace the woman with a younger woman.
2. Keep the woman on until she is ready to retire.
3. Tell the woman she must order clothes that will appeal to young girls.
4. Let the woman order the clothes for the older women and hire another younger woman to order clothes for the younger girls.
5. Help the woman order the clothes and pick out items that you think young girls would like.

=5

No. You do not have the knowledge to order women's clothing. Try again.

=4

Yes. This is the correct response. Go to the next problem.

7. You are the manager of a store. You have been ordering most of your merchandise from a certain distributor for many years. Lately, many of his products have been returned to your store because they are defective. You hate to change distributors because you and the man have worked together for so long, but you can't afford to have your customers unhappy. What is the best thing to do?

1. Tell your distributor you will have to get your products elsewhere unless the quality improves.
2. Change to another distributor.
3. Keep the same distributor and hope that his quality of goods increases.
4. Only order the goods that you know are quality from this distributor and get your other goods from another distributor.
5. Keep the same distributor and apologize to your customers when they get a defective article.

=1

Yes. This is the correct response. Go to the next problem.

8. You are the manager of a department store. One of your friends has a charge account at your store. His wife makes many charges there. The man does not pay his bill regularly, and is far behind in his payments. Because he is your friend you do not know how to handle the situation. What is the best thing to do?

1. Take away the man's charge account card.
2. Send him a polite note saying his balance is over due.
3. Talk to him personally and tell him he must make regular payments.
4. Do nothing so you won't offend him.
5. Don't let his wife charge anymore things.

=2

Yes. This is the correct response. Go to the next problem.

9. You are the manager of a department store. You have many customers who charge things at your store. Most of them pay their bills regularly, but some of them have debts of up to 500 dollars. Your credit office has sent them notices but they do not respond. What is the best thing to do?

1. Turn the delinquent bills over to a collection agency.
2. Call the people personally and tell them they must pay their bills.
3. Charge interest rates on overdue accounts.
4. Do nothing and keep sending the people notices.
5. Hire a lawyer to garnishee their wages.

=2

No. There is a better answer. Try again.

=3

No. You already charge an annual interest rate. Try again.

=4

No. You want the money that the customers owe. Try again.

=1

Yes. This is the correct response. Go to the next problem.

10. You are the manager of a department store. One of your female employees is pregnant and she is not married. It is very obvious that she is pregnant and she is not wearing a wedding ring. You think that the customers may think this immoral and offensive. What is the best thing to do?

1. Fire the girl.
2. Let the girl work as long as she can without wearing a ring.
3. Ask the girl to wear a ring if she wants to work.
4. Put her to work in the stock room where people won't see her.
5. Lay her off and pay her unemployment compensation until she has the baby.

=2

This is the best response. Please go on to the next question.

Your System 2 Index of  
decision success is \_\_\_\_\_.  
Your index rating is \_\_\_\_\_.  
You are \_\_\_\_\_.

You are leaving this course.

SYSTEM 3

This is module four of the computerized consumer exploitation program (Exploit4). It consists of 9 problems involving the sale of merchandise that in some way seemed to cheat the customer. Read each question carefully and then decide what the best thing is to do as the person who bought the merchandise.

1. Two weeks before Christmas you called one of the major airlines and made a reservation to fly to New York City two days before Christmas. You got to the airport and bought your ticket, but when you went to the departure gate, you were told that there was no room on the flight, that it had been oversold. Also, all flights for the next two days are booked up. What is the ideal thing to do?

1. Begin to scream and yell that you were cheated.
2. Try to steal someone else's ticket.
3. Wait around for a cancellation.
4. Get your money back and forget about going to New York.
5. Go to the ticket desk and ask for overnight accommodations and a flight out the next day.

=3

No. You do not have to do this. Try again.

=5

Yes. This is the correct response. Go to the next problem.

2. You have hired a contractor to remodel your kitchen and have made a sizable down payment on the work. After the work is finished, the new raised tile floor begins to sink and crack. After you have repeatedly called the contractor, he still failed to do anything about it, but you keep getting notices to pay the bill. Select the ideal thing to do.

1. Pay the bill in full, hoping he will repair the floor.
2. Hire a lawyer and take the contractor to court.
3. Tell him you will pay the bill only after he does the repairs.
4. Hire another contractor to repair the floor.
5. Threaten to beat him up if he doesn't make the repairs.

=3

Yes, this is the ideal thing to do. Go on to the next problem.

3. You bought a used car which had a 90-day warranty against any mechanical difficulties. You had the car about two months, driving it under normal city driving conditions, when your transmission goes bad. When you take it in to be fixed under the warranty, the dealer says that you must have been neglectful or have driven it too hard and refuses to make the repairs. Choose the ideal thing to do.

1. Forget it and buy another car from another more reputable dealer.
2. Beat up the dealer.
3. File a suit in small claims court.
4. Vandalize the used car lot when it is closed.
5. Try to get him to give you a deal on another car.

=3

Yes. This is the ideal thing to do. Go on to the next problem.

4. Six months ago a salesman sold you a subscription to a magazine. He told you that if you were not satisfied after the first two issues, you could cancel with no obligation. You signed the agreement and gave him a small down payment, but during the trial period you decided you didn't want it, so you wrote cancelling the subscription. Since then you have received a number of letters threatening legal action and a bad credit rating if you don't pay. Choose the ideal thing to do.

1. Pay up the subscription to stop the annoyance.
2. Write a letter threatening to sabotage their company offices.
3. Continue to ignore the letters.
4. Go to see your local postmaster.
5. Write to the company asking them nicely to stop annoying you.

=5

No. This will probably not do much to stop it. Try again.

=1

No. You are being exploited. Try again.

=3

No. You are being harassed and can do something about it. Try again.

=4

Yes. This is the ideal thing to do. Go on to the next problem.

5. A young, attractive girl comes to your door and explains that she is selling magazine subscriptions in order to get a scholarship to nursing school. She says that she has already made 975 points by selling over 425 subscriptions, but that she must make 1000 points by the end of the week or she loses the scholarship. She begs you to take a 3-year subscription of a well known magazine for \$25 to help her get the scholarship. Choose the ideal thing to do.

1. Take the \$25 subscription to help her get the scholarship.
2. Take another cheaper magazine subscription.
3. Tell her to get out and then call the police.
4. Ask to see her identification and credentials and then make your decision.
5. Forcibly detain her because you think she is a fraud and call the police.

=4

Yes. This is the ideal thing to do. Go on to the next problem.

6. You rented an apartment that was badly in need of repairs. The landlord promised verbally that if you would do the work, he would provide all the materials. You signed a six-month lease and made a security deposit of \$100. After two months, the landlord had failed to provide you with any materials and the place was unlivable. When you moved out, he refused to give you any of your deposit back. Choose the ideal thing to do.

1. Do \$100 worth of damage to his property.
2. Forget it and chalk it up to experience.
3. Beat your former landlord up.
4. Set fire to his property.
5. Consult a lawyer and file a suit in small claims court,

=2

No. You were cheated and are legally entitled to a refund. Try again.

=5

Yes. This is the ideal thing to do. Go on to the next problem.

7. While shopping in a large department store, you make a purchase of \$27.50. You hand the clerk two \$20 bills. She gives you your change and you leave the store. When you get home, you realize that she gave you change for \$30 and not the \$40 that you gave her, so you are \$10 short. Select the ideal thing to do.

1. Call the store immediately and ask them to refund your \$10.
2. Call the manager of the store and demand that the salesgirl be fired.
3. Forget the \$10, and in the future always count your change when you get it.
4. Report the incident to the Better Business Bureau.
5. Steal a \$10 item the next time you are in the store.

=1

Yes. This is the correct response. Go to the next problem.

8. You own a color television and have been having trouble with it. When the television repairman comes to fix it, he tells you that he must replace five of the old tubes. You do not believe that all five of the tubes are bad, so you save the old ones to have them tested. When you have them tested, you are told that four of the tubes are working and only one needed to be replaced. The repairman charged you \$75 for the new tubes and his labor. Select the ideal thing to do.

1. Ask the repairman to refund your money.
2. Keep the new tubes and save the old ones in case you need them.
3. Report the incident to the Better Business Bureau.
4. Report the problem to the owner of the TV repair shop.
5. Go to the TV shop and steal an expensive item to get back the money that they owe you.

=4

No. The owner probably knows what is going on.

=3

Yes. This is the best answer. Go on to the next problem.

9. You are a housewife who frequently buys salads and bakery goods at a delicatessen in your neighborhood. One day you buy some potato salad, and when you take it out of the carton, you find a cockroach in the salad. Choose the ideal thing to do.

1. Return the salad to the store and request a replacement.
2. Have your lawyer file a charge of unsanitary conditions against the store.
3. Throw out the salad and don't shop at this store again.
4. Call the health department and report the incident.
5. Throw out the salad and in the future inspect everything that you buy at the delicatessen.

=4

Yes. This is the correct response. Go on to the next problem.

Your System 3 Index of  
decision success is \_\_\_\_\_.  
Your index rating is \_\_\_\_\_.  
You are \_\_\_\_\_.

You are leaving this course.



SYSTEM 4

This is module thirteen of the DEDEV - Vector computerized decision development program (Vector 13). It contains 11 simulated problems of a mixed type. Answers are programmed into the computer based on a comparison of vector strengths for the various valences that are depicted.

1. Your family has attended one church all of your life. The minister has been there for quite a few years and is getting very old. His sermons are ineffective, and you think he should retire because you don't benefit from his services. What is the best thing to do?

1. Try and have him removed from the church.
2. Go to another church which you feel you benefit from.
3. Keep going to the same church and hope that the minister retires soon.
4. Stop going to church at all until the minister retires.
5. Talk to your family and ask them to try another church with you.

=2

No. There is a better answer. Try again.

=4

No. You don't want to stop going to church altogether. Try again.

=1

No. Other people may not share your opinion. Try again.

=5

Yes. This is the correct response. Go to the next problem.

2. You are a girl in high school. You come from a family of devout Catholics. You have just recently been given permission to start dating, but your parents said that you may date only Catholics. You can understand them wanting you to marry someone of your own religion, but you think it is unfair that they demand that you date only Catholics. Some of the boys that you want to date are not Catholic. What is the best thing to do?

1. Tell your parents that your dates are Catholic whether or not they are.
2. Only date boys who are Catholic.
3. Tell your parents that this is a ridiculous rule, and you will date whoever you please.
4. Ask your priest to talk to your parents and see if he can change their minds.
5. Don't date at all unless your parents remove their restrictions.

=3

No. This will only anger your parents. Try again.

=4

Yes. This is the correct response. Go to the next problem.

3. You and your husband are both of the same religion. You want to attend church every Sunday, but your husband doesn't like to go because he feels that he does not benefit by going. You don't like to go by yourself, and you think he should accompany you. What is the best thing to do?

1. Threaten to divorce him unless he goes to church with you.
2. Go to church alone.
3. Go to church with your family or friends and let him stay home.
4. Stop going to church unless he goes with you.
5. Ask him to find a church that he likes, so you can go together.

=5

No. There is a better answer, Try again.

=3

Yes. This is the correct response. Go to the next problem.

4. You are a Christian. When you started college two years ago, you began dating a boy who is Jewish. You have now decided that you want to get married. Both of your families are opposed to the marriage on religious grounds, and your fiancée's parents have threatened to disown him. What is the best thing to do?

1. Wait another two years until you graduate from college, and then make a decision.
2. Marry him against the parent's wishes.
3. Break off your relationship and never see him again.
4. Ask him to convert to your religion.
5. Convert to his religion, so his parents will accept you.

=2

No. There is a better answer, Try again.

=1

Yes. This is the correct response. Go to the next problem.

5. You belong to the religious group known as Jehovah's Witnesses. It is against your faith to receive blood transfusions. Your husband, who is also of the same religion, was in a serious accident, and is in need of blood transfusions. The doctors say that he may die without them. Since your husband is unconscious, you must sign the release for the transfusions. What is the best thing to do?

1. Don't allow the transfusions.
2. Decide according to your conscience what your husband would want done.
3. Tell the doctors to do what they think is best.
4. Talk to a minister of the church and ask him what to do.
5. Ask your husband's family what they want done.

=2

Yes. This is the correct response. Go to the next problem.

6. You are a teenager living in Washington, D.C. A large group of peace demonstrators are gathered to peacefully protest the war in Vietnam. Pressing through the crowded streets, many individuals rise to violent acts, provoking police arrests. You oppose the war and wish to join the demonstration. However, you do not want any confrontation with the police. What should you do to avoid the police?

1. Join the group but refrain from violence.
2. Make no effort to join the demonstration.
3. Perform violent acts in very crowded places. Police are not likely to spot you.
4. Try to dissuade others from using violence.
5. Remain only as a bystander.

=1

No. You still could become involved. Try again.

=4

No. This crowd may more easily persuade you to do wrong. Try another.

=3

No. There is no guarantee that you will be missed. Try again.

=5

No. You could quickly become one of an angry crowd.

=2

Correct. Please go on.

7. You are an 18 year old boy. You have been planning to go to college this fall. Your 16 year old girlfriend has just told you she is pregnant and is looking forward to having a baby. You still want to go to college but you know that it will be impossible if you get married. If you don't marry her she still wants to keep the child. You are not positive that your marriage will really work out. What is the ideal thing to do?

1. Discuss your feelings with your girlfriend and tell her you are not ready to get married and she should give up the baby.
2. Ignore the whole situation and not see the girl anymore.
3. Get married and provide a home for the baby.
4. Live together and see how things go.
5. Terminate your relationship with the girl but provide for the support of the child.

=5

No. There is a better answer. Try again.

=4

No. There is a better answer. Try again.

=1

Yes, this is the best answer. Go to the next problem.

8. While standing with a high school friend, one of your teachers hears you say you dislike her. What should you do?

1. Get a transfer from her class.
2. Tell her, as nicely as possible, what it is you dislike and why.
3. Pretend it did not happen.
4. Apologize and bring her a small gift.
5. Apologize as soon as possible.

=2

No, this would depend on her personality. Try again.

=5

Yes, this is the ideal response. Go on to the next problem.

9. You are a teenage girl and your father says you are spending too much money on clothes, etc. What should you do?

1. Ask him how much is okay and try to abide by it.
2. Find a part-time job to get your own money.
3. Buy him a gift to get back in his good graces.
4. Argue that all the other girls have these things.
5. Go right on buying.

=1

Yes, this is the ideal response. Go on to the next problem.

10. You are a helicopter flight leader in a combat zone and have received complaints from some of your pilots of instrument malfunctions, though not serious. Each aircraft was not, from the pilots' reports, to be flown again until repairs were accomplished. What should you do?

1. Ground the aircraft in question.
2. Discuss with crew chiefs.
3. Call in the maintenance officer.
4. Check the aircraft personally.
5. Talk to the reporting pilots.

=1

You have to. Go on to the next problem.

11. You are a teenager. While driving your father's car today, you backed into a fence and slightly dented a fender. What should you tell your parents.

1. Don't tell them anything and hope they will not notice.
2. Tell them what happened and that you are sorry.
3. Tell them someone hit the car while it was parked.
4. Pretend it was there before and you just noticed it.
5. Try to find someone to fix it before they find out.

=2

Yes. This is the ideal response. Go on to the next problem.

Your System 4 Index of  
decision success is \_\_\_\_\_.  
Your index rating is \_\_\_\_\_.  
You are \_\_\_\_\_.

You are leaving this course.

SYSTEM 5

This is module three of the computer popularity game (Popularity3).

It contains 10 games concerning the popularity of teenagers and youth.

Read each problem carefully and then select the best answer as you see it.

1. You are a 16 year old high school boy who sucked his thumb when you were young. Now you have buck teeth as a result. You know that they are very unattractive, and you should have braces. Your parents tell you that it is your own fault that you have buck teeth because they told you not to suck your thumb so they don't want to pay for your braces. What is the best thing to do?

1. Try and borrow the money for braces from a wealthy relative.
2. Forget about getting braces and live with your buck teeth.
3. Get a job so you can pay for orthodontist work.
4. Ask your parents to loan you the money so you can get braces.
5. Ask your orthodontist if he will do the work now, and you will pay him later.

=5

No. You may not be able to repay him for some time. Try again.

=4

Yes. This is the correct response. Go to the next problem.

2. You are a 15 year old boy. You are very thin because you have grown several inches in the past year. You are embarrassed about being so thin, because most of your friends are rather muscular. You think that people make fun of you because of your size, and are afraid to talk to girls for this reason. What is the best thing to do?

1. Eat a lot of foods like potato chips and coke to gain weight.
2. Exercise to develop your muscles.
3. Just wait and in time you will fill out.
4. Try and eat as much as you possibly can at meals to gain weight.
5. Wear clothes that make you appear less thin.

=4

Yes. This is the correct response. Go to the next problem.

3. You are a 15 year old girl. You wash your face several times a day, but it still gets very oily, and your skin becomes shiny. You are embarrassed, because sometimes people point this out to you. Also, because your skin is oily, you sometimes have trouble with acne. What is the best thing to do?

1. Wash your face more often.
2. Wear makeup to hide the oil.
3. Don't do anything and hope that you grow out of this condition.
4. Put alcohol on your face to dry up the oil.
5. Consult a dermatologist about your skin condition.

=5

Yes. This is the correct response. Go on.

4. You are a 14 year old high school girl. Most of the girls in your school are very conscious of fashion trends, and they always try and wear what is in style. Now, the latest fashion for girls is hot-pants. You don't look well in hotpants because of your figure, but you want to wear them, because all your friends are. What is the best thing to do?

1. Don't buy any hotpants and only wear what looks well on you.
2. Buy lots of hotpants and wear them.
3. Only buy one or two pair of hotpants so you have some.
4. Lose weight so you will look better in hotpants.
5. Try and set a new fashion trend so people don't wear hotpants.

=1

Yes. This is the correct response. Go to the next problem.

5. You are a 15 year old girl in junior high. You have a dull color of brown hair and you would like to bleach it blond. You know your parents would object to your doing this, so you haven't asked them. You feel that you would be much more attractive if your hair was a different color, and many of your friends color or bleach their hair. What is the best thing to do?

1. Bleach your hair without your parents permission.
2. Don't bleach your hair, but have it cut in a flattering way.
3. Ask your parents if they will let you bleach your hair.
4. Buy a blonde wig.
5. Put a temporary rinse on your hair to see how you like it.

=5

No. You can only darken it with a rinse, try again.

=3

Yes. This is the correct response. Go on to the next problem.

6. You are a 16 year old high school girl. You know that most boys admire girls with large chests, and you really missed out on that category. You are built more like a boy than a girl, and you are very embarrassed about it. Your mother tells you not to worry, and that someday, you may develop more, but you are embarrassed now. What is the best thing to do?

1. Ask your parents if you can get silicone injections to enlarge your bust.
2. Wear a padded bra.
3. Accept the fact that you will always be built like a boy.
4. Wear clothes that are flattering to your figure.
5. Wear clothes that hide the size of your bust.

=4

Yes. This is the correct response. Go to the next problem.

7. You are a 16 year old high school boy. At the insistence of your parents, you finally got a haircut. When the barber finished, you looked in the mirror, and you couldn't believe what he had done. He cut practically all of your hair off, and you look nearly bald. You will be humiliated if you go to school tomorrow and have to face your friends. What is the best thing to do?

1. Insist that your parents buy you a men's wig, since they made you get a haircut.
2. Don't go to school until your hair grows out.
3. Shave off all of your hair so people will think it is a joke.
4. Go to school and try and act like it doesn't bother you.
5. Don't go out in public, and don't get your hair cut again.

=4

Yes. This is the correct response. Go on to the next problem.



8. You dropped out of school before graduation and enlisted in the army. Now your four years are almost up and you will be discharged soon. You do not really like the army and military life, but you are afraid that you can't make it on the outside because you are a drop-out. It looks like the only thing to do is re-enlist, but you don't really want to. What is the ideal thing to do?

1. Re-enlist because you can't make it as a "drop-out" on the outside.
2. Get your discharge and just get on unemployment.
3. Get your discharge and make arrangements to finish school on the GI bill.
4. Get your discharge and become a drug dealer because it's a good way to make money.
5. Re-enlist and finish school while in the army.

=3

Yes, this is the ideal thing to do. Go on to the next problem.

9. You are a 17 year old high school senior. It is Saturday and you just washed and set your hair. A couple of your girlfriends just stopped by, and they want you to go downtown shopping with them. You know it doesn't look good to go out in public with your hair in rollers, but there are some things that you would like to buy. Also, you don't think you will see anyone you know. What is the best thing to do?

1. Go downtown with your hair in rollers.
2. Ask your friends if they can wait while you use a hair dryer.
3. Go downtown another day.
4. Wear a scarf over your rollers.
5. Take the rollers out, and go downtown with wet hair.

=2

Yes. This is the correct response. Go to the next problem.

10. You are a teenage girl who needs to wear glasses. You think the glasses your mother has picked out for you are ugly and unflattering and you do not wish to wear them, knowing that your friends will razz you. What do you do?

1. Accidentally drop them on the floor and step on them.
2. Lose them somewhere.
3. Wear them only at home, never in public.
4. Wear them everywhere and take the razzing from other students.
5. Talk to your mother about getting another style.

=5

Yes. This is the correct answer. All problems could be solved.

Your System 5 Index of  
decision success if \_\_\_\_\_.

Your index rating is \_\_\_\_\_.

Your decision making is \_\_\_\_\_.

SYSTEM 6

This is module one of the senior high gaming and simulation problems of the computerized drug abuse education program (Pludrugs1). It contains 10 gaming and simulation social problems dealing with dangerous drug abuse. It is designed to provide surrogate experience for teenagers and youth in areas pertinent to the illegal use and abuse of dangerous drug situations. Individuals are expected to read each problem carefully, and on the basis of learning in Pludrug make choices that will be to their best welfare. You can ask computer for hazards by pushing H1, H2, etc., or you can ask computer for likely consequences by pushing C1, C2, etc. You may also ask the computer to provide correct answer by typing teach on the console.

1. You have been watching the TV commercials about smoking being harmful to your health. You are an 18 year old high school senior girl, who has been on the dean's honor list for two years. You have never smoked in your life. All of your girl and boyfriends smoke at the social dances and parties, and you feel like an outcast. Your friends are trying to get you to join them in smoking and you really don't want to smoke, You would, however, like to be more like your close friends. What is the ideal thing to do?

1. Start smoking like the rest of your friends,
2. Don't smoke, if you decided against it; for the evidence is clear that smoking is injurious to health.
3. Take a cigarette when they insist, and take a puff or two and throw it away.
4. Tell your friends you prefer to smoke pot, and ask them to join you.
5. Tell them that only a fool would smoke in the face of the evidence we have on health hazards of smoking.

=5

No. There is no real need to offend them. Try again.

=2

Yes. This is the ideal response. Please go on to the next problem.

2. You are convinced that some friends of yours are using LSD and pot regularly. You are a 17 year old senior high girl. Your friends are very secretive about what they do lately. They have not invited you on any of these parties, and you always used to be a part of the gang. Your father is chief-of-police in the small town you live in, and you fear you have been cut out of the social pattern now. What is the ideal thing to do?

1. Ask them for an explanation of their behavior, and assure them of your loyalty.
2. Speak to your father about your suspicions.
3. Ask them for an explanation of their behavior, and warn them of the dangers involved.
4. Say nothing, and pretend you do not notice their change.
5. Ask them for an explanation, and assure them you would like to join in their activity.

=1

No. You really can't be loyal in such an illegal activity. Try again.

=3

Yes. This is the ideal response. Please go to the next problem.

3. You are a 17 year old honor student in high school. You will be graduated in the spring and plan to go to college. Your parents are alcoholics. Your father has lost his job and the family has been living on Welfare for three months. Your mother has affairs with other men, and when both parents are home they fight constantly. You are an only child, and feel that your family is going bad rapidly. What is the ideal thing to do?

1. Call a family conference and discuss the matter immediately.
2. Say nothing, and pretend you do not know what is happening.
3. Discuss the evidence of your mother's affairs with your father.
4. Join them in their use of drugs and alcohol; so you can stand the whole mess better.
5. Discuss the whole matter with your family minister.

=5

No. This should be settled within the family.

=1

Yes. This is the ideal thing to do. Please go on.

4. A group of your friends decide to buy a gram of Hashish and have a pot party. There are three boys and one girl, all about 17. You have never smoked pot. You like your friends very much. However, you are really afraid of becoming addicted. Your friends assure you that Hashish is not addicting, and coax you to join them. What is the ideal thing to do?

1. Run to the police and help them plan a raid on the party.
2. Call the parents of these friends and tell them what is happening.
3. Say nothing to anyone, but refuse to join them.
4. Join them just this once, and say nothing to anyone.
5. Say no, and explain the dangers involved in their behavior.

=5

No. This assumes the role of a parent. There is a better answer. Try again.

=3

Yes, this is the correct response. Go on.

5. There is a rock festival being planned a few miles away for the coming weekend. Your regular girlfriend asks you to take her for kicks. You are both 17 and high school juniors. Your parents trust you, but forbid you to attend such festivals. You are frequently allowed to use the family car for weekend dates. What is the ideal thing to do?

1. Use the family car to go to the rock festival, and say nothing to your parents.
2. Tell your girl friend about your parents' rule, and say you can't go.
3. Get another couple you know who are going to take you along and say nothing to your parents.
4. Tell your girl friend you do not wish to go to such parties, and refuse to go.
5. Explain your problem to your parents, and ask their permission to go to see what's happening there.

=3

No. This would eliminate the use of the family car, but your parents also oppose the rock festival itself. Try again.

=5

Yes. This is the ideal response. Try the next problem.

6. A close girlfriend of yours, Mary, has been selling speed and pot on the high school campus and asks you to join in her business. She does not use the drugs herself, but has purchased a late model car from the profits. You are both high school seniors, and your parents do not know about this activity. You are afraid of being caught and jailed, but would like to make all that money too. What is the ideal thing to do?

1. Report Mary to the police immediately.
2. Join Mary so that you can buy a new car too.
3. Try to talk Mary out of this illegal activity.
4. Say nothing to anyone and let Mary do as she wishes.
5. Tell Mary if she wants to remain your friend she will have to quit this illegal activity immediately.

=3

Yes. This is the ideal response. Go to the next problem.

7. You are walking to the parking lot at high school, and see a boy in your freshman class dragging on a king-sized cigarette, along with half dozen senior boys. Smoking is against the school rules. What is the ideal thing to do?

1. Report the boys to the school principal immediately
2. Pretend you did not see them, and say no more.
3. Call the 15 year old boys' parents and report him.
4. Tell the boys to quit smoking, or you will report them.
5. Ask them for a cigarette so you can smoke too.

=2

Yes. This is the ideal response. Go on to the next problem.

8. You are a 17 year old junior in high school and are attending a party given by a classmate. Your escort is captain of the high school football team, by far the most popular boy in your class, and he insists that you smoke a cigarette along with the crowd. Your parents are strongly opposed to your smoking, and you would like to please them at least until you leave home. What is the ideal thing to do?

1. Take a cigarette. Light it up, and smoke a little of it.
2. Tell him you do not care to smoke, and stand by your decision.
3. Suggest that you get a little hashish and really have a party.
4. Start smoking like the rest of your friends and be one of the party.
5. Report him to the coach of the football team for breaking a rule.

=2

Yes, this is the ideal response. Go on.

9. Your mother is fast becoming an alcoholic, and each evening when you return from high school you find her a little tipsy. You are a girl, 17, a senior in high school. Your father has taken her to the local family physician but things really seem to be getting worse. People in your family are disgusted and people in the church are concerned. Worse, people in the community are gossiping. What is the ideal thing for you to do?

1. Get your father to send her to an alcoholic clinic for treatment.
2. Ask your father to rent you a room in town away from home so you are not embarrassed with your friends.
3. Come home drunk yourself, so your mother sees how bad it looks.
4. Talk the matter over with your mother, and try to get her to stop drinking and join Alcoholics Anonymous.
5. Ask your father to divorce her and marry a nice stepmother for you.

=4

Yest. This is the ideal response. Go on to the next problem.

10. You are an 18 year old, high school senior girl and during an unannounced locker search last week you were caught with illegal drugs. These drugs were in a sealed package you were keeping for a girlfriend, and she claims it was given to her to keep by a boyfriend of hers whom you do not know. The police insist that you tell them who the girl is, but the girl denies having given you the package to hold. What is the ideal thing to do?

1. Tell the police who the girl is and let them investigate from here.
2. Tell the police you did not put the package there, and you don't know who did it.
3. Insist that the package was slipped into your locker while you were dressing for Gym that day, and that you don't know who did it.
4. Tell the police that it is your "speed" and that you use it for medical purposes.
5. Tell the police that this is not a dangerous drug, but some chemical which you got from the chemistry laboratory to do some experiments with.

=5

No. This is not the ideal response. Try again.

=1

Yes. This is the ideal response. Go on to the next problem.

Your System 6 Index of  
 decision success is \_\_\_\_\_.  
 Your index rating is \_\_\_\_\_.  
 Your are \_\_\_\_\_.

SYSTEM 7

This is module 1 of the computer racial games (Racial 1). It includes 10 social problems where there is strong racial bias displayed and you are asked to play the role of one of the persons involved in the confrontation. Read each problem carefully and then select what you believe to be the best answer.

1. You are a black girl of 17. You go to a dress shop to look at the clothes. You pick out what you want to try on and the salesgirl tells you that you cannot try them on unless you buy them. You know that this is not a store policy, but a special rule for black people. Choose the ideal thing to do.

1. Throw the clothes on the floor and leave.
2. Purchase the clothes and try them on.
3. Call the manager and have him explain the store's policy.
4. Steal the clothes when the salesgirl walks away.
5. Buy the clothes. Try them and then return them.

=2

No. You can't afford to buy all of the clothes you want to try on.  
Try again.

=3

Yes. This is the correct response. Go on.

2. You are a member of the student council in your inner city high school. You have been chosen to represent your high school at a regional student council conference in a suburb. When you arrive, you and a small number of other black representatives are ignored and treated in a disrespectful manner. It is obvious that some of the students do not want you there. Select the ideal thing to do.

1. Make an announcement at the meeting that everyone is bigoted and a racist.
2. Leave the meeting with the other black representatives.
3. Disrupt the meeting by shouting and causing a general disturbance.
4. Talk to the sponsor of the program and tell him how you feel.
5. Report the situation to the newspaper and the school administrations involved.



=4

Yes. This is the correct response. Go on.

3. You are white, 17 and a high school senior. Your best friend, also white, is dating a black. You know her parents would disapprove if they knew and that your parents would not allow you to associate with her if they knew. What are you likely to do in this situation?

1. Tell her parents so that they can alleviate your problem.
2. Discuss with your friend your problem but honor her decision.
3. Do nothing. Prejudice is outdated.
4. Refuse to see your friend until she reforms.
5. Tell her boyfriend to leave her alone.

=2

Yes. This is the ideal solution. Go on.

4. While at college you are dating a young black man. Your parents are prejudiced and do not know you are dating someone of another race. What should you do?

1. Bring him home to meet your parents.
2. Tell your parents that you are dating him.
3. Continue dating him, but do not tell your parents.
4. Tell your parents that you are dating him and if they want you will stop.
5. Stop dating him.

=2

Yes, this is the ideal response. Go on.

5. You are a white college student, taking a course in black culture. Every week, the small class meets at someones home. This coming week, the class is to meet at your house. Your parents are prejudiced and your instructor and some of your classmates are black. What do you do?

1. Do nothing and go on as planned.
2. Get your parents to leave home for the time the class would be there.
3. Insist your parents accept the class.
4. Tell the class that it is not possible to meet at your house and suggest another place.
5. Tell your class your parents are prejudiced.

=4

Yes, this is the ideal response. Go on.

6. You are a black person who belongs to an integrated Protestant church. Your church has been invited to attend services at another church of the same denomination. When you go to the church the next Sunday, you are met at the door by an usher who tells you that this is an all-white church and you are not welcome. Choose the ideal thing to do.

1. Withdraw your membership from your church.
2. Insist upon entering the church anyway.
3. Tell the usher that you will organize a "pray-in" on the steps of the church unless you are let in.
4. Tell the usher that you are a member of the church which has been invited to attend services there.
5. Ask the minister of the church to clarify his position on who can attend his services.

=4

No. There is a better answer. Try again.

=5

Yes. This is the correct response. Go on.

7. You are a black man with a wife and family. You have decided to buy a house. You find a house that you would like to have and have made arrangements to purchase it from the owner. When you go to the bank to arrange a mortgage to buy the house, they tell you that they will not be able to finance your mortgage. You have a good credit rating and you have a savings account at this bank. Choose the ideal thing to do.

1. Take your savings from the bank and place them in a bank that will give you a mortgage for your house.
2. Leave your savings in the bank and seek a mortgage from another bank.
3. Don't buy the house.
4. Call the banker's association and tell them what happened.
5. Break the windows in the bank some night.

=1

Yes. This is the correct response. Go on.

8. You are a Spanish-American. You have heard of a car dealer who offers particularly good prices on new cars. You call the dealership to find out how much the car that you have in mind would cost, and they quote you a price of \$2,000. Later, when you go to the dealer to buy the car, you are told that they want \$3,000 for it. It is, you are told, the current price. You think it is apparent that they are discriminating against you because of your race. Select the ideal thing to do.

1. Tell him that you are not interested in buying the car.
2. Buy the car for \$3,000.
3. Buy the car and put a sign on it saying that the dealer cheated you.
4. Try to bargain with the dealer for a better price.
5. Ask the owner of the dealership to explain why you were quoted a price of \$2,000 over the phone and now the price has risen to \$3,000.

=5

Yes. This is the correct response. Go on.

9. You are a white freshman girl in a junior high school citizenship class. A black boy sits next to you and you enjoy talking with him during discussions. He seems to be a lot of fun. You are planning to go to the Halloween Dance with your girlfriends but he asks you to go with him. What do you do?

1. Agree only if he will go steady with you.
2. Tell him you don't dance with niggers.
3. Tell him you don't know how to dance,
4. Thank him, but tell him that you don't want to be tied to one boy at the dance.
5. Say yes, but play sick the night of the dance.

=4

Yes, this is the best response. Go on.

10. You are a boy who is a senior in high school. The majority of the students in your high school are white and you are black. While most of your friends are white, you have never dated a white girl. One of your white friends has invited you to a party and there is a white girl whom you would like to invite. You have talked to her several times and she seems to like you, but you do not know if she would go out with a black boy. Choose the ideal thing to do.

1. Ask a black girl to go to the party with you.
2. Have one of your friends ask the white girl if she would go with you.
3. Ask the white girl to go to the party with you.
4. Ask your friend who is having the party to ask the girl to come by herself so you can meet her there.
5. Go to the party by yourself.

=3

Yes. This is the correct response. Go on.

Your System 7 Index of  
decision success is \_\_\_\_\_.  
Your index rating is \_\_\_\_\_.  
You are \_\_\_\_\_.

SYSTEM 8

This is module 2 of the computerized unwed mother hazards program. It consists of 10 social problems dealing with sex hazards that provide learning experiences for teenagers and youth relative to sexual problems.

1. You are a GI stationed in Germany and are engaged to a girl back in the States. While in Germany you have dated many girls and the one you have been seeing for the last four months tells you she is pregnant. She wants to have the baby and would also like you to marry her, but you love and want to marry the girl whom you are engaged to back home. What do you do?

1. Deny that you are the father of the baby.
2. Do not marry her but pay support or for an abortion and tell the truth to your girlfriend.
3. Don't marry her, but pay support and try to hide it from your fiancée when you get home.
4. Marry her and forget about the girl at home.
5. Go AWOL because the problem is too hard to face.

=2

Yes, this is the ideal thing to do. Go on.

2. You are a 16 year old girl and for a year you have been going steady with a wonderful boy of 18 who has left for college in another city. You always got along with him very well and you miss him. You have two more years of high school. The boy still wants to go steady with you and is angry when you talk about dating someone else now that he is gone. What should you do?

1. Marry him and move to the town where the college is.
2. Break off the relationship and tell him you never want to see him again.
3. Agree to keep on going steady even though he is gone and don't date.
4. Tell him that both of you are free to date now that you are apart, but still remain friends.
5. Date anybody you want to but don't tell him about it.

=4

Yes. That is the best thing to do. Go on.

3. You are a veteran from recent service in Viet Nam now living in your hometown. One of the soldiers from your hometown who was in your unit in Viet Nam and who is also home has been dating your old girl-friend. You know for a fact that while in Viet Nam he contacted syphilis and you are worried that he may not be getting treatment for it and is having sexual relations with her. What is the ideal thing to do?

1. Call her and tell her what you know.
2. Start a rumor that he has syphilis and gave it to her.
3. Do nothing and forget about it.
4. Confront him and ask him as tactfully as possible if he has been treated.
5. Arrange to accuse him in front of her.

4=

Yes. This is the correct response. Go on.

4. You are a 19 year old soldier stationed in Viet Nam. While on leave in Saigon you met a Vietnamese girl whom you fell in love with and now want to marry and bring back to the States. You have known her for about three months and are sure you love her. She speaks no English and all your buddies say you are crazy for wanting to marry her. What do you do?

1. Break off with her and never see her again.
2. Lead her along about marrying her and then leave her when you ship out.
3. Marry her right away and show everyone you are your own man.
4. Discuss it with someone you respect, like the chaplain and take time to think it over.
5. Write home about your decision and ask your family's opinion.

=4

Yes. This is the ideal thing to do. Go on.

5. You are a 17 year old girl and have been seeing a boy whom you like very much. Your parents have met him and seem to like him. Recently when a Puerto Rican family moved into your neighborhood there was a lot of gossip among your neighbors with racial slurs directed against the family and many mothers won't allow their children to play with the Puerto Rican children. Much to your surprise your parents made anti-Puerto Rican statements and unknown to them, your boyfriend is half Puerto-Rican. What is the ideal thing to do?

1. Break up with your boyfriend.
2. Tell your parents you think they are racist bigots.
3. Don't tell your parents he is part Puerto Rican and hope they will not find out.
4. Tell them he is half Puerto Rican and that it is too bad if they don't like it.
5. Explain to them that you think their prejudices are unfounded and tell them the truth.

=5

Yes. This is the ideal answer. Go on.

6. While you were serving overseas in the Navy you got a letter from your girlfriend saying that she wanted to date others and wished to break off the relationship. You are very hurt because you love her. When you get home you find out she is engaged to be married. What is the ideal thing to do?

1. Try to get over her as best you can and find another girl.
2. Go to see her and try to get her to change her mind.
3. Start a rumor that she is just a whore.
4. Commit an act of violence against her.
5. Threaten to kill him if he does not stay away from her.

=1

Yes, this is the ideal thing to do. Go on to the next problem.

7. You are a 16 year old high school sophomore and are dating a boy about 3 years older than yourself. You get along very well, and you like him much, but he is intent on having sexual intercourse with you. He has had relations with several other girls, and he sees no reason why you shouldn't do the same. You want to maintain your virginity, but you don't want to lose him. What do you do?

1. Refuse to have intercourse with him until you can reconcile it in your own mind.
2. Have intercourse with him so you don't lose him.
3. Tell him to have intercourse with other girls, but continue to date him.
4. Tell him you don't want to see him again.
5. Tell him if he wants to have intercourse with you, he'll have to marry you first.

=1

Yes this is the correct response. Go on.

8. You are a 16 year old boy dating a regular girl with whom you are having intercourse. Thus far, she has not become pregnant, although you are not really taking any precautions. You know you should be using an effective contraceptive, but you are afraid they won't sell you any at the drug store because of your age. You certainly don't want the girl to get pregnant. What is the best thing to do?

1. Tell your girlfriend to get some birth control pills.
2. Don't get any contraceptives and just hope she does not become pregnant.
3. Stop sleeping with your girlfriend.
4. Ask an older friend to buy some contraceptives for you.
5. Go to the drug store and ask the pharmacist for some contraceptives.

=5

Yes. This is the correct response. Go on.

9. You are a 17 year old boy. One of the girls in your high school supposedly was pregnant last year, and now she has a bad reputation. You don't know if the rumor is true, but she seems like a very nice girl to you. You would like to take her out, but you don't know what your friends would say. No one else wants to date her, because of her reputation. What do you do?

1. Don't ask her out.
2. Ask her out, and tell your friends you are taking her out for sex.
3. Ask her out, but don't take her anywhere where someone will see you.
4. Ask her out, and take her where you normally would take a date.
5. Ask her if the rumors are true, and if so, don't take her out.

=4

Yes, this is the correct response. Go to the next problem.

10. You are a 16 year old girl who was raped while hitchhiking. You told no one as you were too ashamed. You now find out you are pregnant. You can't confide in your mother as you have never gotten along and you know she will not understand. Your father is dead. You have been going with a boy for the last eight months but have never been intimate so cannot blame the baby on him. What should you do?

1. Go to the police and social worker and tell the story.
2. Have an affair with your boyfriend and then make him marry you.
3. Have an abortion.
4. Leave town.
5. Have your baby and keep it.

=1

Yes, this is by far the best choice. Go on to the next problem.



Your System 8 Index of  
decision success is \_\_\_\_\_.  
Your index rating is \_\_\_\_\_.  
Your decision making is \_\_\_\_\_.

SYSTEM 9

This is module two of the computerized marriage counseling program (Marriage2). It contains 10 simulated social problems in the area of marriage and family.

1. You are a student in high school. When you come home from school in the afternoon usually you find your mother drunk. She starts drinking in the morning and drinks all day. She doesn't cook meals or wash clothes or clean the house anymore. You are embarrassed to bring your friends to your home and your father stays away from home as much as possible now. What is the ideal thing to do?

1. Ask your father to divorce your mother.
2. Move out of your home.
3. Do the housework for your mother and cook the meals.
4. Ask your father to encourage your mother to join Alcoholics Anonymous.
5. Talk to a counselor at school about your mother.

=4

She may refuse to admit that she has a drinking problem.

=2

No. There is a better answer. Try again.

=5

Yes. This is the ideal response. Go to the next problem.

2. Your parents have never gotten along very well. Lately your father has been going out a lot at night and staying out late. One of your friends told you that there are rumors going around that your father is dating one of the teachers in your high school. The teacher is young and unmarried and has always been nice to you. Your mother has no idea of what is going on. What is the ideal thing to do?

1. Tell your mother what you have heard.
2. Follow your father next time he goes out to see where he goes.
3. Tell your father about the rumors and ask him if they are true.
4. Tell the teacher you know about her affair with your father and if they don't stop seeing each other, you will tell the principal.
5. Ignore the rumors.

=3

Yes. This is the ideal thing to do. Go on to the next problem.

3. You and your wife have been married for four years and have had three children. You do not want to have any more for awhile and did not plan to have the first three so soon. Your wife has not wanted you to have sexual relations with her since your last child was born for fear of getting pregnant again. You love your wife and want to show your love for her in all ways. What is the ideal thing to do?

1. Have an affair with another woman who will sleep with you.
2. Find an effective method of birth control so your wife will not have to worry about becoming pregnant.
3. Divorce your wife.
4. Leave your wife alone until she is ready to resume sexual relations with you.
5. Force your wife to sleep with you by physical force.

=2

Yes, this is the ideal response. Go on.

4. You and your husband have been married for several years and have not had any children. You consulted your doctor and he found that you were incapable of having any children. You want a child very badly and would like to adopt one. But your husband doesn't want to. What is the ideal thing to do?

1. Divorce your husband and marry someone who is for adoption.
2. Give up the idea of having any children.
3. See a family counselor with your husband.
4. Try and adopt a child without your husbands knowledge.
5. Start a nursery school in your home so you can be around children all day.

=3

Yes. This is the best response. Go on.

5. You are a boy in eighth grade and are doing average work in school. Your problem is your parents, who actually physically fight each other whenever they are in each others presence. You have just been told that they plan a divorce. You are upset by all the fighting and the pending divorce of your parents, both of whom you love. Select the best response.

1. Run away.
2. Kill yourself.
3. Stop speaking to both of your parents.
4. Pretend you do not care and get into all sorts of trouble.
5. Talk with the minister of your church.

=5

Yes. This is the best answer. Go on.

6. About once a week, your father goes out at night and gets drunk. When he comes home he gets violent and gets into arguments with you and your mother. He has hit your mother and threatened to harm you. You are very afraid of him when he gets drunk and you are afraid that someday he will hurt you or your mother. What is the best thing to do?

1. Arrange to be out of the house when he comes home drunk.
2. Urge your mother to leave your father unless he stops drinking.
3. Talk to your father when he is sober and tell him how you feel.
4. Report your father to the police when he comes home drunk.
5. Ask your father to join Alcoholics Anonymous.

=3

Yes. This is the ideal response. Go on.

7. You are a married man with two children. Some time ago, you lost your job, and you have been unable to find another one. You cannot collect unemployment for another six weeks. The mortgage is due on your house, and you have several charge accounts which you must pay. You only have a little money saved and you know it will not pay all of your bills. What is the best thing to do?

1. Rob a store to get some money.
2. Ask a friend to loan you some money until you start working again.
3. Sell your house.
4. Try and get a loan from the bank.
5. Sue the company that fired you.

=4

Yes. This is the ideal response. Go on.

8. You and your husband are both Catholic. You have had three children in the first four years of your marriage, and you do not want any more for awhile. Your religion does not permit the practice of birth control, but you have talked to your priest, and he said that the final decision is up to you. Your husband wants you to start taking birth control pills. What do you do?

1. Take the birth control pills.
2. Stop having sexual relations with your husband.
3. Don't use any contraceptives, just hope that you don't get pregnant.

4. Change to another religion which doesn't object to birth control.
5. Use the rhythm method of birth control which is sanctioned by the Catholic church.

=1

Yes. This is the correct response. Go on to the next problem.

9. You are a young man who is Protestant. You are planning to marry a girl who is Catholic. She wants you to change your religion to hers before the marriage, but you don't want to. You have talked to her priest, and he said that it was not necessary for you to be Catholic in order to have your marriage recognized by the church. What is the ideal thing to do?

1. Join the Catholic church to make your fiancée happy.
2. Tell her that you will raise your children Catholic, but you won't turn Catholic yourself.
3. Don't marry the girl. Instead marry someone of your own faith.
4. Ask your fiancée to change to your religion.
5. Join the Catholic church, but don't go to church or practice the religion.

=2

Yes. This is the correct response. Go on.

10. You are a young woman, married for two years. You are deeply in love with your husband. One Saturday afternoon you go into the basement and find your husband and his business associate engaged in a homosexual act. They are not aware of your presence. What is the best thing to do?

1. Call them both dirty queers and run out.
2. Ignore the situation and don't mention it to your husband.
3. Leave quietly. Talk to your husband later and convince him to seek professional help.
4. Blackmail the other man - threaten to tell his wife.
5. Go upstairs, pack a suitcase and leave him.

=3

Yes. This is the ideal response. Go on.

Your System 9 Index of  
decision making is \_\_\_\_\_.  
Your index rating is \_\_\_\_\_.  
You are \_\_\_\_\_.

APPENDIX C: EXAMINATION ON SCIENTIFIC PROCESS OF DECISION MAKING

I Process  
II Philosophy

KEY: 1 = True  
2 = False

# EXAMINATION OF SCIENTIFIC PROCESS OF DECISION MAKING

Russell N. Cassel  
University of Wisconsin-Milwaukee 53201

Directions: This is an examination on the scientific process of decision making. Read each item carefully, then turn to the separate answer sheet provided and mark a "1" if the statement is "true", and a "2" if the statement is "false".

- |    |   | <u>1</u> | <u>2</u> |
|----|---|----------|----------|
| I  | 1. Decision making always has to do with choices one has to make in relation to the future.   | T        | F 1      |
| II | 2. Internal locus of control means that one believes that success is based largely on "luck"-being at right place at right time.      | T        | F 2      |
| II | 3. Trial-and-error activity represents the first and basic stage for scientific process in decision making.                           | T        | F 2      |
| I  | 4. The conscience of man is like a "secret police department" that monitors everything that he does or even thinks.                   | T        | F 1      |
| I  | 5. Valence in decision making represents a choice or need that is present for a particular moment of time.                            | T        | F 1      |
| I  | 6. Once a decision is made it should not be changed until the goal has been achieved under the scientific process.                    | T        | F 2      |
| I  | 7. The thief who doesn't get caught has made a successful decision based on the scientific process.                                   | T        | F 1      |
| II | 8. Hazards involved in scientific decision making represents risks outside of person and in future, and have not occurred.            | T        | F 1      |
| II | 9. Two choices are all that are really necessary to make decisions by use of the scientific process.                                  | T        | F 2      |
| II | 10. An example of "inner locus of control" would be where a religious person expects God to show him right choices to make.           | T        | F 2      |
| II | 11. Hypothesis development and testing is the basic process involved in scientific decision making.                                   | T        | F 1      |
| I  | 12. Delinquency and crime are the direct product of one's decision making and can only be changed by learning better decision making. | T        | F 1      |
| II | 13. Scientific decision making is based largely on the person's feelings; as opposed to one's thinking.                               | T        | F 2      |

## SCIENTIFIC DECISION MAKING EXAM (Continued)

	<u>1</u>	<u>2</u>
II 14. All decisions made by an individual that pertain to other persons always involve one's conscience and ego-ideal.	T F	1
II 15. The first step in the scientific process for decision making is to clearly identify and define one's goal or expected outcome.	T F	1
II 16. Likely consequences in relation to scientific decision making represent impact on individual and are typically in past tense arena.	T F	1
II 17. Models of excellence in scientific decision making often seeks to study results of research findings.	T F	1
II 18. Systems analysis represents the scientific process for decision making.	T F	1
II 19. Full range of choices in scientific process of decision making should not include militant choices or anti-conforming ones.	T F	2
II 20. Scientific decision making involves living through full range of choices in one's imagination before selecting the right one.	T F	1
I 21. In vector and analysis the "vector" represents the strength of one's desire or needs for that moment of time.	T F	1
I 22. The autocratic aggressive and autocratic submissive leader decision making patterns are very much alike or similar.	T F	2
I 23. Research studies tend to show rather conclusively that the autocratic aggressive leader obtains greatest production by group members.	T F	2
I 24. Research studies tend to show rather conclusively that the laissez faire leader obtains highest morale among group members.	T F	2
I 25. Research studies tend to show rather conclusively that democratic leaders produce greatest among of "we" feeling among members.	T F	1
II 26. Power in relation to leader in the making of group decisions always involves the concept or notion of control.	T F	1
II 27. The hypothesis in relation to scientific decision making always means "best educated guess" for that moment of time.	T F	1
I 28. Power in relation to the group leader in making group decisions always deals with group morale.	T F	1
I 29. Religion is an excellent substitute for the scientific process of decision making, and often works just as well.	T F	2
I 30. Organizational climate has to do with the degree of "openness" for in-put to decisions by group members.	T F	1



## SCIENTIFIC DECISION MAKING EXAM (Continued)

1 2

- |        |   |     |   |
|--------|---|-----|---|
| I 31.  | No fewer choices or alternative courses for action are necessary for use of the scientific process in decision making by man.             | T F | 2 |
| I 32.  | Persons as young as 6 or 7 years of age may be expected to learn effective the use of scientific decision making procedures.              | T F | 1 |
| I 33.  | The "ego" is the part of man responsible for choices at the "moment of truth", and serves to gratify or fulfill man's needs.              | T F | 1 |
| I 34.  | Decision making serves as the principal vehicle to human freedom, and there is no other substitute.                                       | T F | 1 |
| I 35.  | Successful decisions that pertain to one's self to one's future must contribute to greater self-actualization on the part of individuals. | T F | 1 |
| I 36.  | Self-actualization means that each person is responsible for their own destiny in life.   | T F | 2 |
| I 37.  | When one does not obey the will of another and always obeys himself he is sure to be completely free.                                     | T F | 2 |
| II 38. | The scientific process in decision making is a psychological process that is mathematical in nature and can be improved by learning.      | T F | 1 |
| I 39.  | Some persons are born with the ability to make good decisions; while others have to learn the scientific decision process to be good.     | T F | 2 |
| II 40. | Under vector and valence analysis the right decision is a balance of "how badly one wants it" and "price one is willing to pay".          | T F | 1 |
| I 41.  | Under vector and valence analysis the correct decision may be to hold-up a bank, or to steal the car of a neighbor.                       | T F | 1 |
| I 42.  | When one elects a goal in decision making that he accepts, he always has high interest and high motivation to attain that goal.           | T F | 1 |
| I 43.  | Feelings of success are always related to one's decisions and mean that goals are within one's reach with some effort.                    | T F | 1 |
| I 44.  | Failure can be changed to success by use of decision process and simply lowering of one's goals.  | T F | 1 |
| II 45. | By asking friends who have done something successfully that you want to do how they did it represents a "model of excellence".            | T F | 1 |
| II 46. | Under systems analysis to decision making the correct response can never violate the moral code accepted by group members.                | T F | 1 |

## SCIENTIFIC DECISION MAKING EXAM (Continued)

	<u>1</u>	<u>2</u>
I 47. Gaming and simulation is one means for getting "experience with" for the use of information that one has in relation to decisions.	T F	1
I 48. The "play" spirit of the child permits one to take greater risks in the making of decisions and fosters imagination.	T F	1
I 49. "Competency learning" can only be achieved by having "experience with" information; not with "information about" alone.	T F	1
II 50. The "distinguished path" in vector and valence analysis is the choice elected by individual at the "moment of truth".	T F	1
II 51. Constraints in decision making deal with those things one is not interested in as a goal.	T F	1
II 52. Things that are constraints in relation to one decision of an individual may be the best choice or choices in a different situation.	T F	1
II 53. Knowledge is essential for use of the scientific process in the making of decisions.	T F	1
II 54. Performance objectives, individual goals, and personal motivation are all the same thing in relation to the individual, psychologically.	T F	1
I 55. Personal satisfaction to individual and knowledge of progress are indispensable conditions for feelings of success or failure.	T F	1
II 56. One need not consider the hazards in the scientific process to decision making if one considers carefully the likely consequences.	T F	2
II 57. It is usually safe to rely on the judgment of elders in the making of decisions for they have been down the road before.	T F	2
II 58. Financial profit is generally the most important consideration in determining the correct response in scientific decision making.	T F	2
II 59. Power of the leader in relation to group decisions always deals with production of group members	T F	1
II 60. The number of negative feelings expressed by an individual is highly related to the one's ego strength for solving problems.	T F	1